

OPERATIONS OF AND CHALLENGES TO THE ARMY MEDICAL DEPARTMENT
DURING THE US-MEXICAN WAR, 1846-1848

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by

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ABSTRACT

OPERATIONS OF AND CHALLENGES TO THE ARMY MEDICAL DEPARTMENT DURING THE US-MEXICAN WAR, 1846-1848, by Major Anthony T. Shiepk, Jr., 120 pages.

Throughout its history, the Army Medical Department (AMEDD) has faced unique challenges not shared by other organizations within the Army. The origins of many of today's organizational structures and operations are rooted in experiences in the mid-19th century, specifically the US-Mexican and American Civil Wars. The purpose of this study is to explore the organizational structure of the AMEDD before, during, and after the US-Mexican War and the operational challenges faced with supply, battlefield medicine, and patient care during the conflict, and post-war after care. This study draws on a variety of sources including memoirs, personal journals, journal articles, field reports, official correspondences, congressional papers, army regulations, and compiled histories of the Army Medical Department. The field operations of Major Generals Winfield Scott and Zachary Taylor are used as case studies. This study will ultimately show that while the AMEDD made great strides towards improving its position within the regular army and improving its operational procedures, the AMEDD missed many opportunities to improve before the American Civil War.

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CHAPTER 1

INTRODUCTION

On 13 May 1846, President James Knox Polk issued a proclamation officially entering into a war with Mexico, although military operations on the Rio Grande had already commenced.¹ At the time of the U.S.-Mexican War, the Army Medical Department (AMEDD) was still in its infancy. Despite the necessity for medical providers in both the American Revolution and the War of 1812, a permanent medical department was not established until an act of Congress passed on 14 April 1818. From 1836 to 1861, Dr. Thomas Lawson served as the second Surgeon General of the army. The Second Seminole War in Florida was his preeminent concern during his first decade, and the war with Mexico occupied only two years of his twenty-five year tenure. However, the operational and organizational obstacles faced remained his primary concerns until the end of his term on the eve of the American Civil War as he struggled to move the AMEDD from a preprofessional to professional organization.² This paper seeks to explore the organizational structure of the AMEDD prior to, during, and after the war; its place within the larger army; and operational challenges in the fields of supply, battlefield medicine, personnel, and after-care of soldiers. Before the outbreak of the

¹ James K. Polk, "Proclamation 47—Announcement That a State of War Exists With the Republic of Mexico," 13 May 1846, Online by Gerhard Peters and John T. Wooley, The American Presidency Project, accessed 13 October 2014, <http://www.presidency.ucsb.edu/ws/?pid=67909>.

² According to *Webster's Dictionary*, "preprofessional" relates to the period of study preceding specific practice of a profession. Because the AMEDD was so young and lacked continuity and institutional knowledge, it was still in the learning stage at the outbreak of the US-Mexican War. Even though ample lessons presented during the conflict, the AMEDD failed to evaluate and implement change as a result.

conflict, the AMEDD was geared primarily towards peacetime and garrison operations—policies and procedures for battlefield medical care was not yet established. As an organization, it had difficulty transitioning to wartime operations and still largely operated as if it were in garrison. The military campaigns of Generals Taylor and Scott serve as case studies for the AMEDD’s handling of its wartime responsibilities.

Origins and Establishment of the Surgeon General

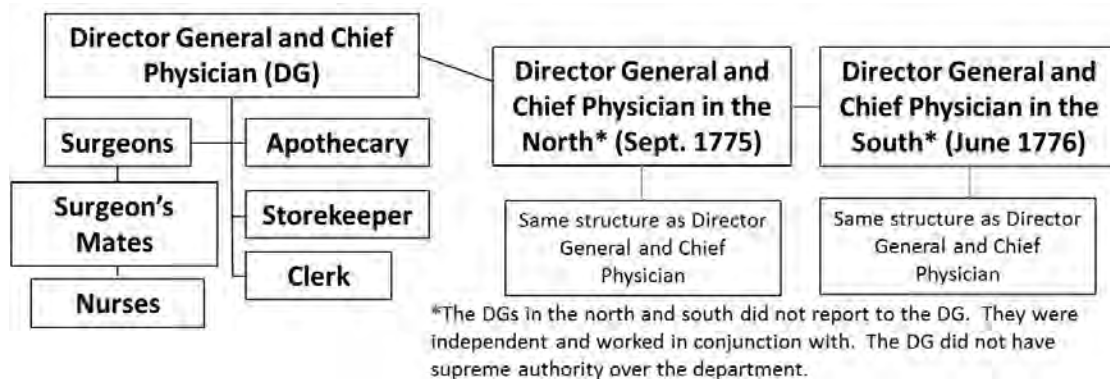


Figure 1. Organizational structure of the hospital department (AMEDD forerunner), 1775-1777

Source: Created by author.

From the founding of the United States Army, there has always been a medical presence. Physicians and doctors have served units in garrison and in the field on short-term expeditions and during the Revolutionary War and War of 1812. However, except in times of emergency or crisis and before the creation of AMEDD, there was no consistent leader or a specific medical department. The first man to lead the Army’s medical personnel was Benjamin Church. Church served three months as the Director General

and Chief Physician of the Hospital of the Army during the American Revolution until his removal amid internal strife and the interception of a ciphered message declaring his loyalty to the British crown. John Morgan, who spent 15 tumultuous months as the Director General, followed Church. Morgan's primary obstacles were difficulty procuring and distributing adequate supplies for his surgeons and dissension in the ranks. Morgan favored a system where physicians were equally proficient for field or hospital duty and was met with much resistance.³ Upon his removal from the post in January 1777, the position remained empty until April.

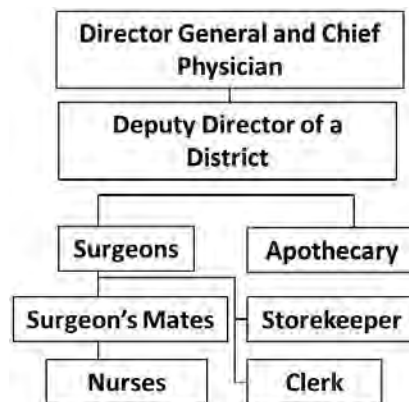


Figure 2. Organizational structure as of April 1777

Source: Created by author.

³ At this time, temporary, regimental hospitals were established at the needs of the army and were administered to differently than the more permanent general hospitals. Regimental surgeons remained with their assigned regiment. Physicians and surgeons either worked in a regimental setting or general hospital setting. Congress did not provide guidance to the hospital directors to provide supplies for regimental surgeons causing a great deal of conflict between the hospital directors and regimental surgeons.

On 11 April, as part of a reorganization of medical personnel, William Shippen, Jr. was appointed as the Director General of the Military Hospitals of the Continental Army. As with Morgan, internal strife proved Shippen's undoing. Unusually harsh winters followed by muddy springs complicated the already precarious supply situation. Additionally, two former rival colleagues levied accusations of misappropriation of supplies, neglect of patients, and stealing against Shippen. A court martial ensued but Shippen was acquitted in August 1780. The proceedings prompted Congress to take a more active role in the appointment of medical personnel within the Army. Congress reorganized the medical functions within the army and appointed John Cochran to succeed Shippen in January 1781 as Director General.

Besides instituting another leadership change, the Congressional reorganization created the office that is the foundation for today's medical logistician—the office of the Purveyor, who served under the deputy director generals and had one assistant.. For the first time, the job of maintaining financial records and obtaining funds and supplies fell to someone other than the head physician in a hospital. Cochran experienced the gamut of challenges facing Army medical providers—they were woefully understaffed, lacked basic supplies, and often went without pay. The lack of pay caused many qualified physicians to resign from the military because they could not support their families.

With the American Revolution ending, the position held by Cochran disappeared when the Hospital Department was disbanded. While there were still medical personnel assigned to care for invalids, there was no centralized military medical entity from 1783 to 1792. In 1792, the man in a position comparable to that of the previous Director General was Richard Allison. Allison was the chief surgeon for both Major General

Arthur St. Clair and Major General Anthony Wayne. St. Clair and Wayne were consecutively assigned to assemble forces to engage Indians in the northwest. During these engagements, Allison lamented that the supplies he and his surgeons received were the “refuse of the druggists’ shops.” Again, this illustrates the supply difficulties faced by medical providers. Without a consistent, centralized organizational structure, there was no way to build upon previous experiences. Each physician or purveyor at the helm needed to reinvent the wheel, everything from where to obtain supplies to distribution.

Allison remained at his post until 1796. After he vacated his position, it remained vacant until July 1798 when another crisis arose. George Washington came out of retirement to muster forces in preparation for a possible conflict with France. He chose James Craik as his Physician General. Craik remained active until it became clear that there would be no war. In 1800, Congress directed that soldiers brought in as part of the increase be discharged and the army’s medical personnel were again without a leader.⁴

During the War of 1812, Dr. James Tilton served as the Physician and Surgeon General of the Army. Dr. Tilton’s first order of business was an inspection of military camps and hospitals along the northern frontier. He witnessed first-hand how quickly lessons in organization, procurement, and sanitation from previous conflicts were forgotten. The contempt for basic sanitation measures and frequent encounters with incompetent personnel spurred him to draft *Regulations for the Medical Department* in 1814. For the first time, there was a written set of standards for the medical department. Another challenge for Tilton was the division between the hospital and garrison medical

⁴ For a comparison about strength of the army to number of medical personnel, see Appendix A.

personnel. As the head of the medical department, Tilton was responsible for assigning personnel to the regimental hospitals, he did not assign personnel to garrison, that was the responsibility of the individual deputy directors. Additionally, the organization of and assignments of medical personnel within the various militia units was disjointed and problematic for the department. When the war ended in 1815, Tilton's position was eliminated and would remain so until 1818.

The position of surgeon general was filled intermittently. The disjointed nature of the position meant that it was difficult to build upon lessons learned from previous experiences. During the interwar years between the American Revolution and the War of 1812, medical support was wholly the responsibility of individual surgeons, not a centralized department. This led to great discrepancies in supply quality and quantities, medical training, and staffing. Shortly before the outbreak of the War of 1812, medical personnel in the Army totaled six surgeons and 12 surgeon's mates to care for approximately 3,300 soldiers and officers.⁵ Between 1776 and 1818, military physicians largely provided their own instruments and supplies, held no rank, and were paid less than their line counterparts.⁶

After the War of 1812, the military again reduced in size. Medical personnel, military leaders, and politicians all realized the benefit of creating an expandable Army

⁵ The responsibilities of a surgeon's mate are similar to that of a modern Registered Nurse or higher. However, there was no standardized training for surgeon's mates.

⁶ US Army Medical Department Office of Medical History, "The Surgeons General of the United States Army and Their Predecessors," accessed 14 August 2014, <http://history.amedd.army.mil/surgeons.html>; Mary C. Gillett, *The Army Medical Department 1775-1818* (Washington, DC: Center of Military History, United States Army, 1983), 23.

that could maintain a core of competent military professionals during peacetime. Because the military's medical system was only in place during times of crisis, there was no ability for long-term planning or reflection about experiences. This led to a department that, when activated, was inefficient. Supplies were difficult to obtain, causing some surgeons to hoard supplies, driving up expenses and creating shortages for other surgeons. Surgeons were at the whim of the highest-ranking line officer and could be pulled away from hospitals leaving sick and injured soldiers with little to no medical care. Lastly, a lack of a centralized, permanent department meant that there was nobody to evaluate advances in medical care and adapt them to the military. Congressional action in 1818 reorganized the staff of the army and created the permanent position of Surgeon General of the Army, and, with that, the Army Medical Department. At the time of its creation, in addition to the Surgeon General, the AMEDD consisted of an Apothecary General, 43 assistant surgeons, and 8 assistant apothecaries. By 1821, the Apothecary General and assistant apothecaries were eliminated.

The first Surgeon General of the Army was Dr. Joseph Lovell. His first task was to revise the Medical Regulations governing the department, as the old ones were ill suited for the new organizational structure. He had difficulty enforcing standards and discipline among the surgeons and physicians under him. Primarily, he focused on economic use of supplies and adequate and timely reporting. The surgeons often hoarded medical supplies, which were difficult to obtain and receive in usable condition. By 1821, Lovell saw that regulations were put in place to ensure a surgeon attached to the Quartermaster Corps purchased medical supplies. While Lovell made strides in improving the status of medical officers within the army, increasing the size of the

department, and addressing supply concerns, his success was limited and it fell to his successor to build upon his improvements and move the department from a preprofessional to professional, learning organization.

Thomas Lawson: The Second Surgeon General of the Army



Figure 3. Surgeon General Thomas Lawson

Source: Author's collection.

Thomas Lawson entered military service 1 March 1809 as a surgeon's mate in the Navy where he served until January 1811. In February of 1811, Lawson entered the army as a garrison surgeon's mate until 1813 when he was promoted to the surgeon of the 6th Infantry. After the AMEDD became a permanent fixture and was reorganized, his name appeared in the records as a "senior officer" in grade of surgeon. By 1836, he was the medical director of Fort Mitchell, Alabama until appointed as Surgeon General in

November. Although his military service is well documented, there is no information about his education, medical or otherwise.⁷

During his service as a garrison surgeon, he experienced firsthand the additional details handed down from garrison command that pulled him away from his primary responsibilities of providing preventative and urgent medical care to soldiers.

Additionally, he had direct experience at Fort Smith, Arkansas with the distrust regular Soldiers held for medical personnel. There, general distrust of medical personnel caused many Soldiers to self-medicate instead of going to the post hospital for treatment.⁸

Unlike many within the AMEDD, Lawson had considerable experience as a soldier. Not only did he prefer field service to hospital duty, he also served as a lieutenant colonel with a Louisiana volunteer unit at the beginning of the Second Seminole War. Even after appointment as the Surgeon General, his preference for field service meant that he was frequently absent from his Washington, DC, office. Once becoming surgeon general, Lawson advocated for the stationing of surgeons at various posts throughout the United States with the goal of familiarizing them with the various diseases and climates of the country.⁹

⁷ P. M. Ashburn, *History of the Medical Department of the US Army* (Boston: Houghton Mifflin Company, 1929), 120.

⁸ Edwin C. Bearss and Arrell Morgan Gibson, *Fort Smith; Little Gibraltar on the Arkansas* (Norman: University of Oklahoma Press, 1969), 29, 55-56, 84; Mary C. Gillett, *The Army Medical Department 1818-1865* (Washington, DC: Center of Military History, 1987), 48.

⁹ Harvey E. Brown, *The Medical Department of the United States Army from 1775-1873* (Washington, DC: Surgeon General's Office, 1873), 159; Gillett, *The Army Medical Department 1818-1865*, 75.

Lawson was an argumentative individual who did not tolerate criticism or frustration well. He was a somewhat arrogant individual and believed that his methods were the correct ones. He had little tolerance for what he perceived as complaining about poor working conditions, strenuous duty, or short supplies, even though he frequently cited these reasons when lobbying Congress to expand the department. He dealt with criticism or what he viewed as whining by subordinates swiftly and strongly. In a letter, Lovell once characterized him as “pugnacious” to which Lawson penned a lengthy rebuttal outlining Lovell’s shortfalls as Surgeon General. While Lawson was at Fort Smith, he had an adversarial relationship with garrison commander, Colonel Matthew Arbuckle. A particularly intense argument ensued between Lawson and one of Arbuckle’s first lieutenants resulted in Lawson beaten in a fistfight. Charges were filed against Arbuckle by Lawson and Lieutenant Colonel Zachary Taylor, and against Lawson by Arbuckle. Whatever the cause of the conflict between the lieutenant and Lawson, this incident illustrates Lawson’s argumentative nature. These attributes and experiences were both beneficial and detrimental as he prepared and led the AMEDD during the conflict with Mexico. Ultimately, he was able to put his personality traits to good use and succeeded in elevating the position of the AMEDD within the larger army, and increasing the size of the department. However, he failed to address medical material management, patient transport, and personnel assignments or recognize a medical breakthrough when presented with it. Additionally, his desire to remain in the field caused problems during the war. As a result, the AMEDD did not develop into a professional, learning

organization under his watch—the department he left was essentially the same as when he was appointed Surgeon General.¹⁰

The U.S.-Mexican War

The road to war began in what is now the State of Texas. A former Mexican territory, Texans declared their independence and won independence after the Battle of San Jacinto in 1836. At that time, there was popular support in the United States for the annexation of the Republic of Texas. Neither the Whigs nor Democrats in Congress supported this, believing it would lead to war with Mexico.¹¹ In 1844, James K. Polk ran and was elected on a pro-annexation platform. In December 1845, Texas agreed to annexation.

Publically, the Mexican Government was unwilling to cede control of Texas. However, they were unable to negotiate the Texas issue through diplomatic channels because of internal political strife. In the summer of 1845, Polk sent soldiers under now General Zachary Taylor to Texas. That November, Polk also sent John Slidell to offer money in exchange for the disputed land. The Mexican populous saw the presence of Slidell as an insult.

In May 1846, a Mexican cavalry routed a 70-man patrol, killing 16 soldiers.¹² This led to the declaration of a war that lasted just under two years from April 1846 to

¹⁰ Gillette, *The Army Medical Department 1818-1865*, 47-48.

¹¹ Berkeley, “Who Is James K Polk,” *Martinsburg Gazette*, 8 July 1847, accessed 1 December 2014, <http://www.history.vt.edu/MxAmWar/Newspapers/MG/MG1847fJulyDec.htm#aMG47v48n19p2c3Gazette>.

¹² Jack K. Bauer, *Zachary Taylor: Soldier, Planter, Statesman of the Old Southwest* (Baton Rouge: Louisiana State University Press, 2010), 155-156.

February 1848. As a result, the Rio Grande became the boundary of Texas, California and land that encompasses six more southwestern states was ceded to the United States, and slavery returned to the former Mexican territories.

This conflict presented several challenges that the AMEDD was not prepared for. Its experiences in earlier conflicts did not equip the department to operate almost entirely in the territory of its adversaries, far removed from supply depots and requiring resupply via long lines. The department was ill-equipped to handle the staggering number of patients as the result of illness, often forcing the department to rely on less-qualified volunteer and contract surgeons. There was little depth in the department and almost no institutional knowledge in the young organization. Despite extensive recordkeeping and reporting, the AMEDD did not incorporate lessons learned from early engagements to improve latter ones. The ability to raise and maintain medical personnel sufficient for the size of the army and its area of operations was a challenge faced during this conflict that would be repeated in the next.

CHAPTER 2

ORGANIZATION AND STRUCTURE OF THE AMEDD

At the time of the US-Mexican War, the AMEDD was the youngest department within the Army. Since its inception, the Medical Department faced credibility challenges and was not held in the same esteem as other departments within the army. For example, Congress and the War Department have historically been slow to assign rank and equal pay and billeting to officers of the Medical Department; it was not until the years between the US-Mexican and American Civil Wars that medical officers were given parity with their line counterparts. Today is somewhat the opposite where doctors and other health care providers are entered into the Army at a higher rank and awarded special pay.

Surgeon General Lawson recognized the need for the medical professionals under him, and the Medical Department as a whole, to be held in the same regard as line or supply officers from other branches of the Army. An arrogant man who felt entitled to respect by virtue of his profession and position, respect for the surgeons of the Department was important to him, and he bristled at the suggestions of removing visible signs of authority, such as epaulettes and sashes, from surgeons' uniforms. Doctors in the military were generally distrusted because the caliber of doctors varied so greatly within the country. Visible signs of authority would bolster the image of army surgeons as professional members of the officer corps and not quacks. While at Camp Smith, Lawson had experienced how doctors were distrusted by soldiers and camp leadership. This sentiment had not changed by start of the war, if anything the conditions in New Orleans and along the Rio Grande amplified the fear of the soldiers. While in New Orleans in

1847, one surgeon noted that soldiers, though seriously ill, did not want to be sent to the military hospitals. The prevailing belief was that they would not be adequately cared for by the hospital staff. For Lawson, the visible signs of authority and military rank were important because this would be a way to gain the respect of the soldiers.¹³

Rank was another concern and the rank structure for medical officers created conflict in the field. An act from 1847 finally afforded medical officers rank equitable to that of cavalry officers. As the Surgeon General, Lawson held the rank of colonel. Towards the end of the war, he would become a brevet brigadier general. Medical officers, even if they held the rank of a field-grade officer, only had that rank recognized within the AMEDD. The law was written somewhat ambiguously and for some time it was not clear exactly where AMEDD officers' ranks were recognized. Many AMEDD officers felt they no longer needed to take a backseat to junior line officers. This confusion led to the court martial and conviction of Clement Finley, a surgeon in the rank of major and Lawson's successor, shortly after the end of the war. Finley was charged

¹³ Gillett, *The Army Medical Department 1818-1864*, 81; United States Army Medical Department, *Regulations for the Medical Department of the Army* (Washington, DC: Jacob Gideon, Jr., printer, 1840), 4; U.S. National Library of Medicine, accessed 15 October 2014, <http://collections.nlm.nih.gov/pageturner/viewer.html?PID=nlm:nlmuid-0255650-bk>; United States Congress, *Statutes at Large*, 25th Cong., 2nd Sess. (Washington, DC), 224, 259, accessed 15 October 2014, http://memory.loc.gov/cgi-bin/query/D?hlaw:4:./temp/~ammem_jsPe; United States War Department, *Military Laws of the United States: Including those relating to the Marine Corps, to which is prefixed the Constitution of the United States*, ed. Trueman Cross (New York: G. Templeman, 1838); United States Army Medical Department, *Regulations for the Medical Department of the Army* (Washington, DC: 1850); U.S. National Library of Medicine, accessed 15 October 2014, <http://collections.nlm.nih.gov/pageturner/viewer.html?PID=nlm:nlmuid-0260632-bk>; Thomas Neely Love and H. Grady. Howell, *A Southern Lacrimosa: The Mexican War Journal of Thomas Neely Love, Surgeon, Second Regiment Mississippi Volunteer Infantry, U.S.A.* (Madison, MS: Chickasaw Bayou Press, 1995), 35-36.

with failing to obey the orders of Brevet Lieutenant Colonel Braxton Bragg, whose regular rank was captain. As a major, Finley felt he outranked Bragg. In response to the confusion, the adjutant general decided the old rules about how AMEDD officers were recognized within the larger army still applied.¹⁴

The issue of rank did not only cause personal conflict, it became a logistical concern in the field when a medical officer required the use of a wagon or a detail of soldiers and was “outranked” by a lower ranking line or supply officer. Lawson maintained that medical officers were not trying to usurp the authority of the line officers but had a desire to “be recognized as something more than mere civilian employees of the government authorized by courtesy to wear a uniform.” Salutes were not rendered to officers within the AMEDD.

Pay was important at time when there was a surplus of physicians in the United States. Many found it unprofitable to open a private practice and attempted to turn to the military as a source of a steady income or, in some cases, as means to travel. Age restrictions and a rigorous examination process weeded out physicians that may not have possessed the knowledge necessary to do their job successfully. Not until 1838 was the pay of officers within the AMEDD comparable to those outside it. In that year, Congress assigned pay equal to that of a cavalry officer in the rank of first lieutenant to major, depending on seniority, and an additional ration for every five years on active duty.

¹⁴ United States War Department, *Report of the Secretary of War, which accompanied the annual message of the President of the United States, to both houses of the Congress* (Washington, DC: Beverly Tucker, 1855); Gillett, *The Army Medical Department 1818-1865*, 129.

Building the Department

Lawson felt that the only way to build a successful department was to start with a core of competent physicians and adequately compensate them for their labor. Often stymied by Congress who did not adequately expand the department to sufficiently care for the army and its area of operations, Lawson strove to staff his department with only the most capable and required several additional duties to build and further medical knowledge and understanding. While these actions did further and strengthen the department, the constant reliance on volunteer and contract surgeons hampered progress. Not only did it compromise the view of the department as a whole, reliance on contract surgeons cost a great deal of money.

Originally implemented under Surgeon General Lovett, Lawson continued the practice of entrance exams for surgeons wishing to serve in the army. The exams were established at a time when states were beginning to drop the requirement of testing for physician licensure. Additionally, the caliber of medical education, and the people enrolled, varied greatly from state to state. Although generally distrusted by many lay individuals, doctors were still considered gentleman. As such, men “too weakly to labor . . . indolent and averse to bodily exertion; or addicted to study but too stupid for the Bar or too immoral for the Pulpit,” or those whose “parents wish to have one gentleman in the family,” chose medical school.¹⁵ Clinical training was also still in its infancy, so many doctors received little to no practical training prior to becoming a doctor. The design of the examinations was such to ensure only fully qualified individuals would be admitted to

¹⁵ Daniel Drake, *Practical Essays on Medical Education, and the Medical Profession in the United States* (Cincinnati: Roff and Young, 1832), 6.

the ranks of the Medical Department as members of the regular army. For example, in 1847 the examinations held in New York saw fifty-eight candidates. Of that, five were rejected for moral or physical reasons, eight withdrew, and 34 failed. That is a passing rate of only 19 percent.¹⁶ Increasing the standards for entry created a body of more able surgeons who would be better equipped to face the challenges that were being encountered in Mexico. Unfortunately, more stringent standards also introduced a host of new challenges and conflicts within current policies.

The number of surgeons assigned to the Medical Department was inadequate for the size of the army and its mission. Additionally, with the acts of 1847 increasing the size of the army, the disparity between the number of surgeons and the size of the force became more glaring. Instead of adequately increasing the size of the Medical Department, Congress chose to permit civilian contract surgeons and required that raised units of volunteers provide their own surgeons. The overriding desire among field commanders in Mexico was an increase in medical officers, and they felt that the volunteer and contract physicians were “for the most part adventurers who had come . . . to see what they could pick up, and were utterly worthless.”¹⁷ Traditionally, one to three surgeons would be assigned to a regiment in garrison. However, when Congress ordered volunteer units to be called up, they only authorized each volunteer regiment two physicians. This placed further strain on surgeons in the regular army who were already

¹⁶ Brown, 183.

¹⁷ Ibid., 189. Brown comments several times as to the worthlessness and ineptitude of volunteer surgeons, but he began his military career as a volunteer surgeon with the 17th New York for three years before joining the regular army.

dispersed in geographically remote locations throughout Florida, the west, and Mexico, and forced the Medical Department to augment their ranks with contract surgeons.

Contract and volunteer surgeons were not subjected to the same rigorous examination requirements as surgeons with the regular army. As such, the validity of their education was questionable. While some contract surgeons were young doctors who had passed the examinations and were waiting for a slot within the AMEDD to open, others were poorly trained individuals who were more motivated by greed. Volunteer doctors presented their own unique set of issues. Generally, they were unaccustomed to life in the military and ignorant of what little knowledge there was concerning the connection between sanitation and illness. They failed to complete required monthly reports; reports which were crucial to the maintenance of adequate supply levels, and they were wasteful in their use of supplies.

In addition to the lax standards and lack of military bearing possessed by many contract and volunteer surgeons, they were more expensive than their military counterparts were. The salary paid to army surgeons was \$40-\$45 per month with no additional stipends. Lawson felt that “men so rigorously selected deserved more adequate salaries” and Congress responded by raising the salaries to \$50-\$55 per month, depending on years of experience. Still, a contract surgeon could fetch between \$30 and \$50 base pay per month depending on patient load. A surgeon who brought his supplies and medicines with him was reimbursed up to 50 percent in addition to his regular pay. Additionally, if a physician had to leave behind his civilian practice to move with the troops, his pay could be in excess of \$100 per month. By the close of the war, the price of these contract physicians was over \$24,000, which Lawson contended would be the

equivalent of an additional 24 assistant surgeons. To put that amount into perspective, in 1846 Congress appropriated only \$22,000 for the AMEDD. In 1847, in response to the need for contract surgeons and the increased responsibilities in wartime, Congress appropriated \$150,000 for the AMEDD. Lawson went on to question Congress as to the logic of employing private physicians “unknown...and employed on the spur of the occasion” rather than “regularly instructed and disciplined medical officers . . . found qualified morally, physically, and professionally.”¹⁸ While Secretary of War, Jefferson Davis, concurred with Lawson, these measures were not immediately acted upon in time to positively affect operations in Mexico. Additionally, as will be discussed in chapters 4 and 5, Lawson failed to capitalize on powerful allies within the army or Congressional concessions.

¹⁸ Gillett, *The Army Medical Department, 1818-1865*, 92, 128; United States Army Medical Department, *Regulations for the Medical Department of the Army* (1850), 19-20; United States War Department, *Report of the Secretary of War*, 7.

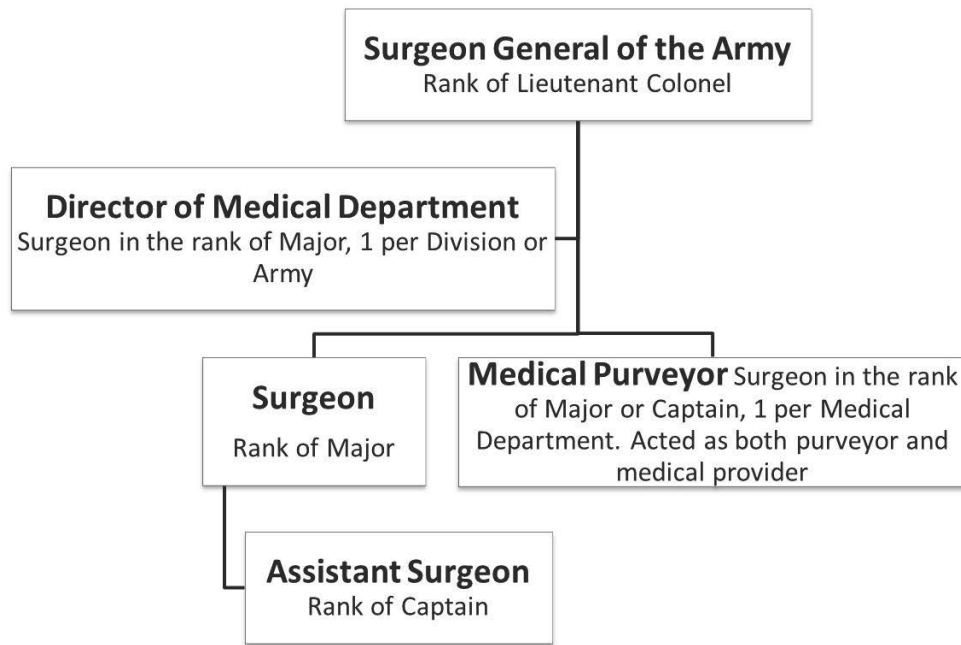


Figure 4. Organizational structure of the AMEDD, 1846

Source: Created by author.

The roles of personnel within the department did not change greatly from the establishment of the department to when Lawson took over. The Surgeon General was responsible for overseeing supply procurement and management of medical storehouses; appointing surgeons and assistant surgeons as medical purveyors; appointing surgeons as medical directors of divisions; assigning surgeons and assistant surgeons to their posts; monitoring entrance examinations for potential surgeons; granting furlough and leave; and assigning surgeons to recruit examination boards. Surgeons assigned to recruit examination boards were responsible for determining the physical, mental, and moral fitness of potential recruits. A medical director was the surgeon responsible for assigning surgeons and assistant surgeons under him, ensuring supply requests were complete and correctly routed, and compiling reports for submission to the Surgeon General. Each

army had a medical director. For example, Surgeon Presley H. Craig was the medical director for General Zachary Taylor's army in 1846. Surgeons or assistant surgeons assigned as purveyors worked with military storekeepers, quartermasters, teamsters, and commissary agents to secure necessary supplies. Assistant surgeons were also responsible for patient care.

These roles would remain largely unchanged throughout the war. The responsibilities of the surgeons were very straightforward—care for sick and wounded soldiers, prevent disease, and complete required reports. Surgeons assigned to the examination board for new recruits had the added responsibility of screening men prior to enlistment. Surgeons worked with post commanders to determine suitable locations for posts, camps, and hospitals. Surgeons were also fiscally responsible for the recruits they screened. If a soldier was admitted to the army and later found unfit, the surgeon was responsible for reimbursing the government for the cost of the uniforms and equipment. The surgeon general required a variety of reports to be kept on a daily basis. In addition to reports on sick and injured soldiers, surgeons were required to keep a diary of weather conditions. The roles of members of the department did not change during the duration of the war.

When Lawson first became surgeon general, the department consisted of the surgeon general, 15 surgeons, 60 assistant surgeons, and a clerk. During the Second Seminole War, it was expanded to 22 surgeons. After the war, it was reduced to 20 surgeons and 50 assistant surgeons. This meant that 70 medical officers were responsible for 75 army posts throughout the country and territories. Because of the shortage of personnel, surgeons and assistant surgeons would only be granted leave if they were ill

and some went as long as 10 years without a furlough. Even when granted furlough, surgeons and assistant surgeons were required to find and pay for a replacement in their absence.¹⁹

The size of the department had always been woefully inadequate for its area of operations. For example, at installations like Fort Gibson and Fort Leavenworth, where there were high disease rates and large numbers of troops departing for expeditions, there was usually only one surgeon. Often times, a steward would prepare soldiers for expeditions, instead of the surgeon. When a conflict with Mexico was eminent, no steps were taken by Congress to expand the AMEDD. It was not until 1847, in response to the demands of the war, that it was reorganized to consist of one surgeon general, surgeons, and assistant surgeons totaling 115 personnel, but not all of those men would go to Mexico. As will be discussed later, this was one of the shortcomings of Lawson's. At the same time, Congress also expanded the size of the army, again leaving the AMEDD understaffed.²⁰

Shortages, physicians enticed by the pay received as a contractor, and volunteers enticed by the travel potential were not the only personnel problems experienced by the Medical Department. Congress again hindered the Medical Department from adequately staffing its hospitals by disallowing the enlistment of competent men specifically for employment as hospital stewards. Laws passed in 1838 allowed the Medical Department

¹⁹ United States Congress, *Statutes at Large*, 25th Cong., 2nd Sess., 238; Gillett, *The Army Medical Department, 1818-1865*, 81-84.

²⁰ United States Congress, *Statutes at Large*, 29th Cong., 1st Sess. (Washington, DC), 224, 259, accessed 8 September 2014, <http://memory.loc.gov/cgi-bin/ampage>; Gillette, *The Army Medical Department 1818-1865*, 94.

to enlist men for use as hospital stewards, but in 1842, the law was amended to say that while the Medical Department could enlist men to serve as stewards, they would not always serve as stewards and could be tasked out for use in other areas.²¹ This presented a plethora of problems. First, keeping in mind that the rank of the surgeon was only recognized within the AMEDD, any line or supply officer, at his whim, could remove a trained hospital steward for use as a supply or infantry soldier. Second, this discouraged men from enlisting as stewards because they knew they could be removed and sent off to fight. Third, in the absence of these trained stewards, soldiers ill, weak, drunk, or inept were the men left behind. Fourth, a lack of well-trained stewards placed an increased demand on surgeons who were already presented with a situation where too few surgeons were providing care for a large army. For example, at the general hospitals at Veracruz and Jalapa, the individuals left to assist the surgeon were those who were convalescing and remaining at the hospital was the only thing they could do. At Puebla, 1,800 sick men were left with only one surgeon and six assistant surgeons when the men tasked as stewards moved out with their units.²² It is important to note that hospital stewards of the period, in addition to more minor tasks such as distribution and administration of medications and other supplies from the storehouses to patients and cooks, sometimes were competent enough to act as physicians, providing diagnosis and performing simple medical procedures. Therefore, a lack of skilled stewards would have placed added burden upon surgeons.

²¹ United States Congress, *Statutes at Large*, 25th Cong., 2nd Sess., 246.

²² Gillett, *The Army Medical Department, 1818-1865*, 98, 118-119; Brown, 194.

Lawson took great steps to improve the standing of medical personnel in the eyes of the army at large. Despite the reluctance of some soldiers to seek care from military hospitals, generals often wrote in their official reports of the dedication and tireless service of surgeons in the field. Lawson fought for parity in pay during a time when it was difficult to recruit and maintain a competent staff. However, the use of contract and volunteer surgeons threatened to undermine these steps by employing less-qualified individuals and paying them more. While personnel were one concern, supply and patient transport presented their own set of challenges.

CHAPTER 3

SUPPLY AND TRANSPORTATION

In the 19th century, medicine was beginning to evolve into the science it is today. Because of the state of medical knowledge, supply and transportation were the two areas where the AMEDD could have the greatest impact on the health of the army. Throughout the 1800s, more soldiers died from disease and infection than on the battlefield. During the US-Mexican War, there were several competing theories within the medical community about where diseases came from. The germ theory had been around for more than 100 years, but would not gain widespread acceptance until the 1870s after the work of Louis Pasteur.²³ The most accepted theory was the miasma theory, which held that bad air caused diseases. Because there was anecdotal evidence that people in unsanitary conditions were more susceptible to illness, early public health and sanitation advocates accepted the miasma theory and that bad air was a result of an unsanitary environment. Military surgeons, reflecting the profession at large, also believed that diseases were caused by bad air. Surgeon John Porter spoke for many when he noted that the “sun acting on soil with an abundance of water a few inches below the surface” was a “fertile source of disease” because it created bad air. If disease was absent from within a regiment, the health of the soldiers was directly caused by good air.²⁴

²³ Louis Pasteur was not the originator of the germ theory. He did manage to convince the European scientific community of its validity through extensive research and experimentation.

²⁴ Love, 191, 213; John B. Porter, “Medical and Surgical Notes of Campaigns in The War with Mexico, during the Years 1845, 1846, 1847, and 1848,” *The American Journal of the Medical Sciences (1827-1924)* 23, no. 45 (January 1852): 19, ProQuest.

Dampness was considered a source of bad air, and as such, physicians preferred to house soldiers in and maintain a dry environment, to include clothing and bedding. Besides this recognition of the need for clean, dry bedding, medical officials were ignorant of the link between sanitation and infection. Daily wound care, for example, was performed by the surgeon or attendant going from patient to patient and cleaning wounds with the same sponge and basin of water. The prevailing medical knowledge contributed to the limited impact physicians and surgeons could have on the health of the army and explains why medical professionals were not held in high regard.

Compounding the gaps in medical knowledge were the technological advances made in weaponry during the same period. At the same time that firearms were becoming more destructive, adequate steps were not taken to develop new methods to repair their effects. The American military, like its European counterparts did not engage in medical research and experimentation ahead of an unforeseen conflict. There was no research into how to attempt to mitigate the damage of these newly developed weapons. The mission of the peacetime army was not to prepare to transition into conflict. Because of state of medicine as a science, having proper and adequate supplies, efficient patient transport, and housing are three areas 19th century surgeons could affect despite their limited scientific knowledge.

Supply: Procurement, Transportation, Storage

Supplies for the AMEDD were never the sole responsibility of medical personnel. When the department was first established, there was an Apothecary General. He, along with his staff of up to two assistant apothecaries, was responsible for collaborating with the Surgeon General's office to determine annual requirements for medicine, surgical

instruments, dressings, books, and hospital stores. Additionally, the assistant apothecaries were responsible for procuring the aforementioned items and, perhaps most importantly, packaging, and invoicing them for shipment. Depending on the destination and proximity to the assistant apothecaries, items were either delivered directly to the requesting surgeons or given to military storekeepers or quartermaster agents. Under this structure, the responsibility of procuring and packing fell to individuals knowledgeable about the sensitive nature of some medications and surgical instruments. The greatest shortfall of this organizational structure was that the AMEDD did not own any wagons or transportation equipment. The Quartermaster Department controlled the majority of transportation assets. Despite this shortfall, the position of Apothecary General was an asset to the AMEDD as it ensured that the majority of purchases were done by medically-trained individuals.²⁵

The reorganization of the AMEDD in 1821 eliminated the apothecary positions. Surgeons, already stretched thin, had additional duties as medical purveyors added to their list of responsibilities and they still needed to go through channels outside the Medical Department. An assistant surgeon acted as a purveyor in both Washington, DC and New York City. The purveyor's role was to advise the quartermaster about what medicines to purchase and in what quantities. They were no longer directly involved in the purchasing or handling of supplies. Materials were packed and transported to

²⁵ United States Army Medical Department, *Regulations for the Medical Department of the Army* (Washington, DC: United States Army Adjutan and Inspector General's Office, 1818), Kindle Edition, 8.

necessary locations under the direction of military storekeepers and quartermasters.²⁶ During his tenure as Surgeon General, Lawson observed that medical items were often the target of thieves and subject to improper handling by commissary agents, teamsters, and muleteers. These men, he noted, “handle a box containing the choicest medicines as roughly as if they were boxes of camp-kettles and mess pans.”²⁷ While the system in place under the apothecaries may not have been the most efficient, it was a workable solution that did not place further strain on the surgeons. The ramifications of eliminating the apothecary general and assigning additional duties a regimental surgeon were not evident until the AMEDD transitioned to combat operations.

While there was a medical purveyor responsible for working with the quartermasters to obtain medicines, the other supplies required by the AMEDD were purchased directly by quartermasters or commissary agents. When a surgeon required supplies, three different requisitions, in duplicate, were sent to the quartermasters, commissary agent, and medical purveyor. Two requisitions and two receipts were necessary for every item. Additionally, the forms required by the three different agencies were different. During peacetime, the complex nature of requisitions was merely an inconvenience. During combat operations, the unnecessary paperwork and delays in the requesting and receiving of supplies caused logistical crises.

²⁶ United States Army Medical Department, *Regulations for the Medical Department of the Army* (1840), 4.

²⁷ War Department, *Regulations for the Medical Department of the Army* (1861; reprint Knoxville, TN: Bohemian Brigade Bookshop, 1989), 5, quoted in Richard V. N. Ginn, *The History of the U.S. Army Medical Service Corps* (Washington, DC: Office of the Surgeon General and Center of Military History, United States Army, 2008), 8; United States War Department, *Report of the Secretary of War*, 175.

Adding to the concerns of supply were the inevitable shipwrecks and long journeys between the supply depots and the regimental and general hospitals in Mexico. A purveyor's depot was established in New Orleans in 1847 as a staging area for providing supplies to deployed medical personnel. Despite the presence of this depot, surgeons accompanying soldiers departing from New Orleans to Veracruz were not issued required medicines because the quartermasters allocated space for transporting supplies and medical supplies were the lowest priority. By March, another medical depot and a general hospital was established at Veracruz because this was the base for Scott's campaign. The additional depots were designed to shorten the time between requisition and delivery of medicines. The timeline for the establishment of supply depots and general hospitals in New Orleans and Mexico will be discussed in depth in chapter four.²⁸

Getting medical supplies into theater was only half of the problem because transporting supplies within Mexico was hazardous. Teamsters and muleteers moved supplies between depots and soldiers in the field. Supply trains were subject to guerilla attacks and theft. An article originally published in the *New Orleans Bee* on 27 April 1847 and reprinted in the *Richmond Whig* on 7 May, recounts the discovery of the remains of a group of teamsters strewn along a road near Monterrey whose wagon train was attacked. There were several instances where supply trains not moving with the main

²⁸ Louis C. Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," *The Military Surgeon* (1921), 48, Google Books, 439.

body of the army were attacked. Attacks on supply trains not only impacted medicinal supplies, but dressings and hospital stores that was needed by the AMEDD.²⁹

The forward placement of medical depots did not prevent supply shortages. When the depot at New Orleans was established, the medical purveyor from New York forwarded enough medical supplies to last for one year. The number of these supplies was based on the size of the regular army at the commencement of the war, which was less than 10,000. The amount of supplies did not account for the increases in regular army soldiers or the volunteers. On Lobos Island in 1847, off the coast of Mexico, south of Tampico, Surgeon Richard S. Satterlee reported quinine shortages in the face of an epidemic of fevers. Other shortages of medicines were reported sporadically, however the majority of reports from surgeons in the field tell of adequate supplies. However, questions remain about the veracity of the reports claiming sufficient medical supplies. As previously mentioned and as will be discussed further in the next chapter, Lawson did not tolerate complaints well. Surgeons ‘complaining’ about shortages may have met with stern rebukes from Lawson. The supply requisition process was complicated, there was an insufficient amount of supplies at New Orleans, and Lawson had a reputation for rebuking those who he viewed as complaining. These factors combine with the discrepancy between official reports and battlefield wounds to suggest that the supplies,

²⁹ MSH, “The Seat of War,” *Richmond Whig*, 21 May 1847, accessed 1 February 2015, <http://www.history.vt.edu/MxAmWar/Newspapers/RW/RW1847eJanJune.htm#aRW24i41p1c4Seat>.

while not scarce, were inadequate for the size of the army and may not have been as abundant as official reports suggest.³⁰



COURTESY MASSACHUSETTS GENERAL HOSPITAL ARCHIVES AND SPECIAL COLLECTIONS

Figure 5. Apparatus for administering sulphuric ether, ca 1846

Source: Massachusetts General Hospital Archives, “Ether Globe,” Catalog of Art and Artifacts, accessed 1 December 2014, <http://history.massgeneral.org/catalog/Detail.aspx?itemId=876&searchFor=ether>.

An example of the difficulty in obtaining and receiving some medicinal supplies was demonstrated by the infrequent use of ether during the war. Ether and chloroform

³⁰ Louis C. Duncan, “Medical History of General Zachary Taylor’s Army of Occupation in Texas and Mexico, 1845-1847,” *The Military Surgeon*, 48 (1921), Google Books, 424; John B. Porter, “Medical and Surgical Notes of Campaigns in The War With Mexico, during the Years 1845, 1846, 1847, and 1848,” *The American Journal of the Medical Sciences (1827-1924)*, 24, 47, July 1852, 19; Alexander W. Doniphan, *Colonel Alexander W. Doniphan, at Chihuahua, Mexico, to Roger Jones, Adjutant-General of the Army, at Washington, DC*, Official Report (City of Chihuahua, 1847), accessed 1 December 2014, <http://www.dmwv.org/mexwar/documents/sacra.htm>; Zachary Taylor, *Brigadier-General Zachary Taylor, at Camp Near Matamoras, to Roger Jones, Adjutant-General of the Army at Washington, DC*, Official Report (Matamoras, 1846), accessed 1 December 2014, <http://www.dmwv.org/mexwar/documents/paloalto.htm>.

began to gain popularity as an anesthetic agent during the war, and it was readily available in both New York and Washington, DC, two locations with military storehouses. There were several reasons why anesthetics were not more widely used. First, the apparatus to administer the drugs was a unique dual-opening glass item, and fragile glass was difficult to transport safely all the way to Mexico. Ether was also flammable, requiring special handling. Second, the apparatus and drug were expensive and with the likelihood of damage during transport and the financial constraints of the AMEDD, Lawson believed that it was not a wise investment. Third, the surgeons in the field were apprehensive to utilize a new drug in a combat environment. For example, Surgeon Porter, while head of the general hospital established at Veracruz, distained the use of sulphuric ether. He believed that anesthesia was poisonous to the blood, apt to cause hemorrhaging, and prevented the closing of a wound. Furthermore, he thought that wounded soldiers' "excitement is such as to carry them through almost any operation," rendering anesthesia unnecessary. Many of the contract and volunteer surgeons may not have been familiar with the applications of anesthesia; their education was typically inferior to that of regular surgeons and volunteer surgeons often came from remote areas and received little formal medical training. Porter's views were echoed by other military medical providers and, because anesthesia did not decrease the chance for infection, felt the benefit did not outweigh the risk.

It is not surprising that surgeons within the regular army, despite being well-educated and passing a rigorous entrance examination process would be hesitant to utilize anesthesia. Surgeons within the regular army did not have frequent opportunity to practice intricate surgical procedures during peacetime. During peacetime, the focus was

illness, not traumatic injury. As noted in 1920, the prevailing sentiment among the leaders of the AMEDD was “whatever is, is right,” meaning that if the status quo worked, it would be continued. It was Lawson himself who determined that ether was too volatile and its apparatus too fragile to be used in Mexico. The sporadic usage of anesthesia caused unnecessary suffering to wounded and ill soldiers. However, if anesthetic agents had been easier to procure and transport, the availability to more surgeons and repeated use may have caused its beneficial applications to be realized sooner.³¹

Besides lamenting the handling of medical supply, Lawson did little to help the situation about surgeons needing to go down three different avenues to procure supplies. He merely recommended more stringent guidelines be placed upon those charged with the handling of medical supplies. It is easy to castigate Lawson for his feeble response to the supply problem, but, with the resistance he encountered from the War Department and Congress while lobbying for an increase in surgeons and during the debate over hospital stewards, the transition of medical supply to the Medical Department seems unlikely even had he taken a more aggressive approach. Unfortunately, Lawson sometimes contributed to the supply problem by stubbornly insisting on sending acquisition requests to New York because items were less expensive there. For example, when surgeons in California requested some supplies be procured locally because it was both cheaper and quicker, Lawson did not waiver and maintained supplies be acquired

³¹ Duncan, “Medical History of General Scott’s Campaign to the City of Mexico in 1847,” 445-446. Gillett, *The Army Medical Department 1818-1865*, 114; John B. Porter, “Medical and Surgical Notes of Campaigns in the War with Mexico, during the years 1845, 1846, 1847, and 1848” *The American Journal of the Medical Sciences (1827-1924)* (July 1852): 13-31.

via New York or St. Louis.³² The miserly attitude of the man at the top set the tone for the entire Medical Department; bureaucratic compliance, then, often trumped efficiency and common sense.

While unyielding in acquisitions, Lawson innovated in other areas. For example, he established some new protocols for the handling and shipment of supplies between the depots and the hospitals. He advocated for the careful packing of medicines in smaller packages. By not packing all of it together in the same box, he eliminated the need to open a large box for a small quantity. The medicines still shipped as one lot, however the individual packages were smaller. Learning from his experiences during the Second Seminole War when medicine would often spoil due to its paper packaging, he encouraged the packaging of medicines in bottles and canisters.³³ Both measures were steps to ensure the safety and use of medicines that were sometimes difficult to obtain. Packaging medicines in smaller packages was a trend that continued during the American Civil War, and was expanded when medical supply was issued out in smaller quantities to individual units and not just housed in a depot and sent for as needed.³⁴

As previously mentioned, Lawson preferred field service to working in an office. When the opportunity arose for him to join General Winfield Scott in New Orleans in 1846, he jumped at the chance. While in New Orleans, Lawson supervised the

³² Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," 445

³³ Gillett, *The Army Medical Department, 1818-1865*, 62, 98.

³⁴ In addition to establishing new policies for patient transport and evacuation, Dr. Jonathan Letterman's plan changed how supply was distributed. The plan was first tested during the Battle of Antietam, 17 September 1862.

establishment of the medical depot there but then decided to accompany Scott into Mexico rather than return to his office in Washington. His presence in Mexico as the unofficial medical director within Scott's army created confusion among his subordinates and caused duplicate requisitions of supplies. As will be discussed later, Lawson performed the duties of a surgeon and tended to patients on and off the battlefield. As the leader of the department, his observations of operations were useful, but perhaps he could have best served the AMEDD by returning to his office and implementing changes based upon his experiences.

When he left Washington, Lawson appointed Surgeon Henry Heiskell as the acting surgeon general. Heiskell was a competent administrator and ably handled the challenges of running the department.

Lawson did not, however, relinquish all of his responsibilities to Heiskell. For example, in 1847, Assistant Surgeon Charles H. Laub, the medical purveyor of Veracruz still submitted his receipts of shipment to Lawson. Instead of forwarding them to Washington where they would be sent up to the supply depot in New York City, thus completing the requisition process, Lawson held onto them. As a result, the depot in New York City, having not received the receipts, assumed the supplies were not reaching their intended destination and sent a new shipment. Upon receiving the extra supplies, Laub assumed that he no longer needed to submit requisitions. As a result, by early fall 1847, there was a supply shortage at Veracruz.³⁵

The shortage was not only caused by Lawson's actions. Other factors affected supply levels and the ability of the AMEDD to predict what supplies it would need. The

³⁵ Gillett, *The Army Medical Department, 1818-1865*, 115.

number of soldiers being called up into service was greater than the AMEDD had anticipated. Not only were new regiments added, but the size of a regiment grew so that the regular army totaled 30,000. This was in addition to the 64,000 volunteers raised. Additionally, it was believed by some surgeons in the regular army that contract and volunteer surgeons and nurses were too liberal in their use of supplies. The Quartermaster Department also drew upon the medical stores to supply their teamsters and other employees with medicines. This links directly back to the need for the AMEDD to have rank commensurate with other line and supply officers. A quartermaster officer could deny the request of an AMEDD officer to use a wagon to transport patients, but because the AMEDD officer held no rank outside the department, he could not deny the request of a quartermaster officer for medicines.³⁶

Providing medical care for an army on the move presented yet another challenge. Again, because the AMEDD did not control its own transportation assets, it was at the mercy of others, which sometimes led to ridiculous situations. For example, when Scott's army marched out of Veracruz in April 1847, only one wagon was allotted to carry the medical supplies for 3,500 men!³⁷

The AMEDD took steps to shorten the supply lines by setting up depots in New Orleans and Veracruz. Still, the distances between the depots, combined with hidebound ideas and the complicated requisition process, created unnecessary shortages and supply challenges. Surgeons failed to realize the beneficial applications of anesthesia and instead

³⁶ Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," 438.

³⁷ Ibid., 537, 539.

based final judgment on limited usage at Veracruz. Lawson showed his stubborn nature by not directing Laub to send his receipts to Washington and by not permitting surgeons to procure items locally to shorten transportation times and mitigate loss. Unfortunately, the state of patient transport was not much better.

Patient Transport

Evacuation and transportation of the wounded and ill was another area of continued concern for the Medical Department. Prior to and throughout the conflict, there were no wagons designated or designed specifically for casualty transportation. The ambulance system that was the predecessor of today's patient evacuation model would not be introduced until the Civil War. Consequently, medical staff transported the wounded by whatever means they could procure. Medical personnel evacuated wounded soldiers on a buffalo-hide travois dragged behind a mule after battle at San Pasqual in California.³⁸ To evacuate wounded soldiers at Veracruz, four soldiers carried a blanket containing a casualty. At Cerro Gordo on 18 April 1847, the battle for the pass resulted in 353 wounded. The evening before the battle, General Scott issued General Orders No. 111 that mandated "one wagon for each regiment or battery and one for the cavalry" follow the army's movement to collect the wounded. Even with the use of these few wagons, many casualty evacuations occurred via litter.³⁹ There is one recorded example

³⁸ Gillett, *The Army Medical Department, 1818-1865*, 109; John McHenry Hollingsworth, R. E. Cowan, and H. R. Wagner, "Journal of John McHenry Hollingsworth: A Lieutenant in Stevenson's Regiment in California," *California Historical Society Quarterly* 1, no. 3 (January 1923): 240, accessed 1 December 2014, <http://www.jstor.org/stable/25613589>.

³⁹ Gillett, *The Army Medical Department, 1818-1865*, 114, 118

of a soldier being transported via a two-horse litter, like the one pictured below.

According to Colonel G. E. Cooper, a two-horse litter transported a captain the 196 miles from Mexico City to Veracruz. Transporting the sick and injured over long distances in a litter was a slow and agonizing experience for both the patient and the litter bearers.

While the wagons at the time were not designed for patient transport, more wagons available to the AMEDD would have at least hastened the arduous journey. The suffering these men endured undoubtedly had a negative effect on the morale of the soldiers, as demonstrated by the soldier who felt compelled to take his own life to avoid again being a litter bearer. An 1877 report on patient transport that covered the Revolutionary War through the American Civil War noted that the sick and wounded are not the only ones who suffer from inadequate patient transport. Failing to provide care to the sick and wounded has a demoralizing effect on soldiers and can erode their confidence in combat. Seeing how poorly injured and sick soldiers were transported and cared for probably contributed to the distrust of medical personnel.⁴⁰

⁴⁰ George Alexander Otis, *A Report to Teh Surgeon General on the Transport of Sick and Wounded by Pack Animals* (Washington, DC: US Government Printing Office, 1877), Google Books, 4-5.



Figure 6. Two-Horse Litter like one used in Mexico

Source: George Alexander Otis, *A Report to the Surgeon General on the Transport of Sick and Wounded by Pack Animals* (Washington, DC: US Government Printing Office, 1877), Google Books, 4.

Diseases ran rampant among soldiers departing from New Orleans in 1846. Many volunteer soldiers were from remote towns and had not been exposed to the same germs as soldiers from larger cities. As a result, they frequently fell ill. Again, because medical knowledge was so limited, sick soldiers were transported in close confines alongside healthy ones. This occurred because the fevers and diarrhea that afflicted many soldiers was not viewed as contagious diseases, but a malady caused by the air or water. Dr. Thomas N. Love, a volunteer surgeon with the Mississippi volunteers, accompanied his soldiers on a transport from New Orleans. In a correspondence with Heiskell, Lawson complained that the Mississippi volunteers, Love included, were a lawless set of men because they utilized the services of civilian doctors without authorization. Love's account paints a different picture than Lawson's; soldiers sometimes faced the choice of seeking private medical care or doing without entirely. He described the deplorable

conditions aboard the transport ships and the crowded spaces of the hospitals, the continuous coughing and lamentations of hundreds of soldiers, calling out for necessities like water or bedding. Once off the ships, Love felt that the officers in the regular army did not assist the injured and sick volunteer soldiers, instead giving them only a “scanty couch of straw” upon which to retire. He felt the officers of the regular army were only concerned with their soldiers, and not volunteers. Love maintained that it was only after failing to find adequate quarters for the sick did the officers of the Mississippi volunteers permit their men to seek shelter in private hospitals and boarding houses. Despite what Lawson believed, the Mississippi volunteers were not trying to circumvent the system.

While battlefield conditions are uncertain and constantly evolving, Lawson could have taken more aggressive steps to prepare facilities in New Orleans to accommodate the influx of soldiers. Of the fatalities from the Mississippi volunteers, 65 percent occurred in New Orleans or on a transport ship on the Gulf of Mexico. Considering that the common belief was that disease was caused by bad air, it would have been prudent for Lawson to seek out well-ventilated facilities and transports capable of handling the large number of soldiers. The subject of inadequate preparations in New Orleans will be discussed in depth in the next chapter.⁴¹

Lawson recognized the need for wagons specifically allocated for medical evacuations and medical supply transport. In 1847, he submitted a request to the Quartermaster’s Department to obtain such wagons. He ordered fifty wagons but the requisition order was lost, and Lawson did not pursue the matter further. This was an area where he could have had an immediate effect on the health of the army. It is unclear

⁴¹ Love, 258-259; Gillett, *The Army Medical Department, 1818-1865*, 113.

whether Lawson was immediately aware the requisition was lost. Perhaps if he was in Washington and not off with Scott, he could have kept better tabs on matters such as this. On the other hand, the presence of a professional staff supporting him could have allowed him to delegate the task of obtaining wagons. Although he would continue to pursue the matter of ambulances after the war ended, he dropped a similar measure to obtain ships designed specifically to transport patients.⁴²

The medical evacuation shortfalls were the same throughout Mexico, and will be discussed in greater detail in the following chapter. Commanders often only allocated one wagon per regiment for casualty evacuation. The number of wounded, combined with the number of sick rendered the number of wagons for medical use insufficient. Surgeon Charles Tripler, one of the two surgeons charged with the evacuation of patients from Mexico City and Puebla to Jalapa, would undoubtedly have witnessed firsthand the inadequacy of the current system of patient transport. As the medical director for General Worth, Tripler was responsible for one of the hospitals in Mexico City and would have issued orders for soldiers facing long illnesses or convalescence or with serious wounds to be evacuated back to Veracruz for transport to New Orleans. He would have had direct knowledge of the 16 day wagon trip and waiting days or weeks before a supply train could evacuate patients. Nowhere in Mexico was any medical officer able to obtain more wagons than allotted by the commanding general, leaving him to rely on outside sources for transport of the wounded.

Reform was slow in coming. Only in 1859, did Lawson and the AMEDD seriously look into ambulances. Tripler, perhaps because his experience in Mexico, was

⁴² Gillett, *The Army Medical Department, 1818-1865*, 125.

part of a board charged with examining models of ambulances and it was his four-wheeled design and Surgeon Clement Finley's two-wheeled design that were ordered to be constructed and tested.⁴³

When patients required transport, surgeons and assistant surgeons did not drive the wagons. However, the AMEDD lacked trained non-commissioned officers and soldiers to handle the job. Soldiers detailed for medical duty came from line units. Understandably, a line commander rarely relinquished his best men for medical details. As a result, sick and ambulatory injured were often assigned to drive wagons and remove injured soldiers from the battlefield. These men were hardly in a condition to provide care on the battlefield for wounded soldiers, but because there were no AMEDD enlisted personnel, the least capable soldiers were often responsible for caring for the most vulnerable.

The supply and transportation challenges experienced in Mexico were not acted upon by the officers of the Medical Department, specifically by Lawson. With a few exceptions, Lawson largely left the department as he found it and failed to implement any changes based on the experiences in Mexico. The inadequate supply in the hospitals, difficulty securing adequate transport for patients, and the problems caused by a lack of medical personnel would repeat itself over and over again beginning with General Taylor's army along the Rio Grande and concluding with General Scott's army's push towards Mexico City.

⁴³ Tripler's model was built and tested in the west and received favorable comments from Medical Officers who had occasion to use it. However, in 1861, Finley, who was now the Surgeon General, decided to use his two-wheeled wagon, which was fragile and inefficient.

CHAPTER 4

MEDICAL OPERATIONS DURING SCOTT AND TAYLOR'S CAMPAIGNS

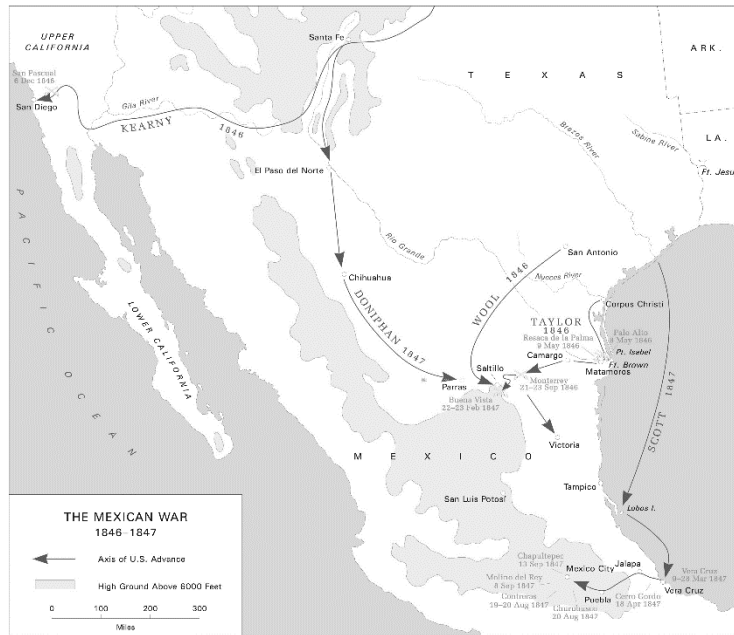


Figure 7. Map of the US-Mexican War

Source: United States Army Center for Military History, *The US Army Campaigns of the Mexican War: The Occupation of Mexico, May 1846-July 1848* (Washington, DC: US Government Printing Office), 6-7.

Already too small a department for the area of operations and the size of the peacetime army, the strain on the AMEDD only increased with the outbreak of hostilities and the influx of new regular army and volunteer soldiers. By 1847, the ultimate American goal became the capture of Mexico City to force Mexico's government to relinquish claims to the disputed areas. Major General Winfield Scott's role was to push towards Mexico City. En route, a portion of Taylor's troops met up with Scott's forces.

Brigadier General Stephen W. Kearny's Army of the West marched from Fort Leavenworth, Kansas to secure New Mexico and California. This chapter will focus on the operations of Taylor and Scott.⁴⁴ General Scott's regular army consisted of eight infantry regiments, four artillery regiments, two light batteries, one mounted rifle regiment, dragoons, and an engineer company. Additionally attached to him were 10 volunteer infantry regiments and one cavalry regiment. General Taylor's army consisted of 3,500 soldiers. Sixty-one regular army surgeons and assistant surgeons, seven of whom were seriously wounded or died in theater, cared for these soldiers in addition to the volunteer surgeons.⁴⁵

The short enlistment terms for volunteer soldiers mandated by Congress were an obstacle for the AMEDD and added another level of complexity to their mission. The primary cause of a soldier being unfit for duty was illness. When a soldier first arrived in Mexico by way of Lobos Island or Veracruz, there was a seasoning period. During this time, a soldier would either become afflicted with one of the prevailing diseases, be minimally affected, or prove resistant. Those who survived a bout of sickness saw a strengthening of their immune systems.

Short enlistment terms and the high turnover rate of volunteer units undoubtedly resulted in an increase in the rate of illness among the volunteers as more unseasoned

⁴⁴ General Kearney's expedition to what is now New Mexico and California will not be addressed in this thesis because of the unique nature of the expedition, its smaller force, and the related challenges not shared by Scott or Taylor.

⁴⁵ Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," 437; WM Hugh Robarts, *Mexican War Veterans. A Complete Roster of the Regular and Volunteer Troops in the War Between the United States and Mexico, from 1846 to 1848* (Washington, DC: Brentano's, 1887), Kindle Edition, 6-7; Gillette *The Army Medical Department, 1818-1865*, 11.

soldiers were introduced to Mexico. When several regiments were discharged at Jalapa and sent home, those volunteers were replaced by new recruits who traveled through Veracruz. In another example, approximately 5,000 soldiers arrived with Taylor's army on the Rio Grande in June 1846 only to be mustered out in July of that year. In essence, the military was sending those most resistance to sickness home while importing a large numbers of unseasoned soldiers. This increased the frequency of illness and placed further strain on surgeons and medical supplies.⁴⁶

Falling Before Honor: Corpus Christi, New Orleans,
and the Gulf of Mexico

Zachary Taylor's army was the first to position itself in preparation for hostilities. In the summer of 1845, Taylor's army relocated to Corpus Christi, Texas from Louisiana. Initially soldiers considered Corpus Christi to be "perfectly delicious and healthy," but by fall, the soldiers began falling ill.

The mosquito problem was more severe than in Louisiana, and soldiers found themselves "speckled as a plum pudding" with mosquito bites. Malaria, although already a familiar ailment within the army, can vary in strain from location to location. Soldiers who had already recovered from a bout of malaria could still become ill from a new strain, but soldiers who had never had malaria would fare worse.

Compounding the mosquito problem were the rattlesnakes and contaminated water supply. Captain Edmund Kirby wrote to his wife describing the water supply as "brackish," causing much illness, a sentiment echoed by Surgeon Porter. Additionally,

⁴⁶ Duncan, "Medical History of General Zachary Taylor's Army of Occupation in Texas and Mexico, 1845-1847," 84.

Porter attributed the rate of illness to bad tents, bad air, climate, want of fuel, and poor sanitation. The situation at Corpus Christi became such that in November, approximately 9 percent of officers and 12 percent of the enlisted soldiers of the 3rd Infantry Regiment were sick. By December, the situation has worsened to 11percent of officers and 14 percent of enlisted soldiers. After December, the illness rate steadily improved throughout the winter and spring; only approximately 12 soldiers died of their illnesses during this time. While these are only the statistics for one regiment, other regiments co-located with the 3rd likely experienced similar rates. Additionally, while most of the patients were soldiers, occasionally family members accompanied their soldiers into the field. Army surgeons provided medical care for them, placing further strain on resources.⁴⁷

It was the responsibility of the medical director of an army to determine when and where to establish a general hospital and approve the establishment of regimental hospitals. As the number of sick at Corpus Christi mounted, continued care of sick soldiers dispersed throughout camp was no longer feasible. In response to the illnesses, Surgeon Presley H. Craig, the then-medical director of Taylor's forces, established eight regimental hospitals and one general hospital. Surgeon Nathan Jarvis served as the director of the general hospital. He, along with Craig and 13 other surgeons and assistant surgeons operated the hospitals. The demand on the surgeons was so great that three civilian doctors were hired from the local population. When Taylor was ordered further

⁴⁷ Emma Jerome Blackwood, ed., *To Mexico With Scott: Letters of Captain E. Kirby Smith to His Wife* (Cambridge: Harvard University Press, 1917), Kindle Edition, 20-21; Porter, "Medical and Surgical Notes of Campaigns in the War With Mexico, during the Years 1845, 1846, 1847, and 1848," *The American Journal of the Medical Sciences* (1827-1924) (January 1852): 18-21.

south by President Polk in March 1846, approximately 900 soldiers too weak or ill to travel were left at the general hospital in Corpus Christi under the care of two surgeons.⁴⁸

Typically, the illness rate was highest among the enlisted, despite the same hospital facilities for both. Craig established the general hospital in a frame building, but the regimental hospitals at Corpus Christi and other locations throughout the war were set up in large tents, other makeshift structures, or were out in the open. Surgeon Porter took special exception to the quality of the tents, noting they were flimsy and leaked. He was especially perplexed by the disparity between the pay, clothing, and food of the army compared to its lodging: “It is a peculiarity of our service that men are better paid, better clothed, and better fed than those of any other army in the world; while they are worse lodged both in peace and war, than any other troops.” Of course he was referring exclusively to the regular army as volunteers often arrived with no equipment and little more than the clothes on their backs. The laws of the time dictated that clothing and equipment for the volunteers be provided by their respective states. Thomas Jesup, the Quartermaster General “had not a single cent that [he] could legally apply for the purchase of clothing for them.” Porter went on to describe the differences between equipment given to officers and enlisted men. Officers had a way to protect themselves from the weather in spite of leaky tents, while the enlisted did not. When combined with the better sanitation among officers, this explains the higher rate of illness among the enlisted.⁴⁹

⁴⁸ Duncan, “Medical History of General Zachary Taylor’s Army of Occupation in Texas and Mexico, 1845-1847,” 87.

⁴⁹ First Quote from: Porter, “Medical and Surgical Notes of Campaigns in The War with Mexico, during the Years 1845, 1846, 1847, and 1848,” *The American Journal*

The illness rate among the volunteers was so high and the medical personnel so few that in September 1846 it caught the attention of General Taylor. He twice wrote to the Adjutant General of the Army stating that the regular army surgeons were “too few for their appropriate duties,” the hospitals were “scantily supplied with officers,” and the volunteer surgeons were not always “men of education and experience.” Taylor articulated all of the challenges faced by the AMEDD—inefficient staffing, using lower-quality contract surgeons at higher cost, and the variability among volunteer surgeons. Whether Taylor realized it or not, he took exception to Lawson’s methods of personnel placement: “There are many surgeons and assistant surgeons at garrisons on the seaboard, and elsewhere, whose places might be filled at moderate cost, while their valuable services might be secured where most needed in the field during active operations.” Taylor criticized the practice of leaving experienced AMEDD officers at home, replacing them in field service with untested personnel. This, he believed, made little sense.⁵⁰

Surgeon General Lawson possessed the authority to move personnel around. He could have sought competent contract physicians along the eastern seaboard and the Mississippi River to temporarily man garrisons in those locations, which would have freed up regular army surgeons and assistant surgeons to go to New Orleans and Mexico

of the Medical Sciences (1827-1824) (January 1852): 6; Second Quote: Letter Thomas. S. Jesup to Secretary of War (18 February 1848), in Charles R. Shrader, *United States Army Logistics 1775-1992: An Anthology, Volume I* (Honolulu: University Press of the Pacific, 2001), 182-183.

⁵⁰ Zachary Taylor, “Head-quarters, Army of Occupation,” Zachary Taylor to Adjunct General of the Army, 2 September 1846, in *Messages of the President of the United States with the Correspondence, Therewith Communicated, between the Secretary of War and Other Officers of the Government on the Subject of the Mexican War* (Washington, DC: Wendell and Van Benthuysen, 1848), Google Books, 412.

Taylor's suggestions for reducing the number of contract surgeons needed in theater and mitigating the often poor volunteer surgeons went unheeded.

In July 1846, Craig requested a leave of absence. Taylor, recognizing the extraordinary strain placed upon the medical officers in his command, endorsed the request, but added the caveat that before he would permit Craig to leave, replacements needed to be sent. Lawson's response to Taylor was typical of his reaction when challenged or when he felt a subordinate, in this case Craig, was being lazy. While Lawson often spoke of wanting to expand the department and extolled the dedication of medical officers, he went on the defensive retorting that, comparatively speaking, the army had as many medical officers as any other army in the world. His response ignored the fact that the area of operations was considerably larger than most other armies. He also cited peacetime ratios of medical personnel to soldiers. His whole response was patronizing, as if he was attempting to placate a small child by employing simple mathematical equations to prove his point. Lawson claimed that he "would never permit [himself] to be sick when honor and duty claimed...active exertion," as if succumbing to malaria or yellow fever was a choice. Lawson's ego aside, this represented a missed opportunity to have a line general join him in lobbying Congress for an expansion to the department in order to better facilitate wartime operations.⁵¹

The staggering number of sick soldiers and need for contract physicians so early in the campaign should have been a red flag for Lawson and the army. Almost a year before General Scott's soldiers would have similar health woes in New Orleans, Lobos

⁵¹ Thomas Lawson, *Surgeon General's Office July 29, 1846 in Mexican Affairs and War, 1825-1848*. Google Books, 415-416. For Taylor's request and Lawson's complete response, see Appendix C.

Island, and Tampico, 21 percent of Taylor's army was sick at Corpus Christi. Before open hostilities began, the lack of depth in the AMEDD required the hiring of contract surgeons and forced two surgeons to care for 900 invalids when the army marched south toward the Rio Grande. Surgeons reported quarterly to Surgeon General Lawson, meaning there would have been at least two reports to Washington detailing the rate of illness and the patient load between the time of Taylor's experiences in Corpus Christi and the amassing of Scott's troops in New Orleans. This illustrates the lack of depth within the AMEDD.

Besides constantly lobbying and writing Congress, there is not much Lawson could affect about the size of the department. However, he may certainly have done more to address the problems than he did. For example, he might have tasked surgeons in the field to seek out competent civilian physicians and create a running list of these men in the inevitable event contract physicians were required, instead of relying on spur of the moment hires. This would have provided a better pool of contract surgeons than the current system. Another area where Lawson could have had a profound impact was in surgeons' assignments. Lawson quipped that he could not send all of the medical officers into theater because there must be "officers in reserve to meet contingencies nearer at home; such as may arise from the hasty assemblage of recruits for transportation to the theatre of war." If Lawson was holding medical officers in reserve, they should have been sent to New Orleans to receive the volunteers and regulars coming through. Furthermore, Lawson issued no guidance regarding whom or how many providers would stay at a general hospital when their regiment moved on. At Corpus Christi, this resulted in two regular army surgeons caring for 900 ill soldiers with only the assistance of other ill and

invalided soldiers. As will be discussed later, there were other times when only one surgeon remained at hospitals full of the sick and wounded. A clear policy dictating who would remain, or delegating that responsibility to a medical director, would have ended confusion and provided better care for the army's casualties. The lack of a policy illustrates that the AMEDD was operating as if it were in a garrison environment, and not an expeditionary situation.⁵²

Before reaching the battlefields of Mexico, soldiers assigned to General Scott assembled in New Orleans in the latter months of 1846 and then staged on Lobos Island by early 1847. New Orleans was designated as the ideal location to consolidate soldiers prior to transport into theater. Located on both the Mississippi River and the Gulf of Mexico, it was a convenient choice for receiving soldiers from the North and moving soldiers into Mexico. Soldiers returning from Mexico also disembarked here. Lobos Island was situated about 180 miles northwest of Veracruz and 65 miles south of Tampico. At three quarters of a mile from the Mexican mainland, it proved an ideal staging location.

While soldiers of the regular army were billeted in converted barracks, volunteers arriving in New Orleans encamped at the site of the 1815 Battle of New Orleans, today the location of the Chalmette Battlefield and National Cemetery. This was little more than an open field where volunteers pitched their tents and drilled while awaiting deployment to Mexico. Conditions in the camp were unsanitary, and the availability of clean water and food does not seem to be something considered prior to the arrival of the soldiers. The location of a camp's water source was recommended by a surgeon or

⁵² Ibid., 416.

assistant surgeon; however, this does not seem to have occurred. The supply of tents also soon ran out. All this combined with inclement weather and frequent flooding to hasten the spread of disease.⁵³

The decision to use New Orleans was made early on, and, despite the experiences of Taylor's army at Corpus Christi, Surgeon General Lawson did not take steps to prepare medical facilities in the city until after soldiers began arriving. Soldiers moving south towards New Orleans were exposed to a host of diseases their immune systems were not equipped to fight. This combined with the poor diet of a 19th century soldier and inadequate equipment possessed by many volunteers to drastically increase the illness rate of volunteers. Surgeon Love of the Mississippi volunteers noted that the diseases experienced en route to New Orleans were the "invincible enemy" and caused miseries ten times that of the most arduous battle. He accurately assessed the primary cause of the misfortune as "imprudence."⁵⁴

The military medical infrastructure in New Orleans was virtually non-existent and medical provisions aboard transport ships was poor. Of the hundreds of volunteers arriving in the Crescent City, dozens became ill during the journey down the Mississippi. Love noted that of 160 soldiers he was with, 150 were sick. To care for these soldiers, he had but 6 mattresses and 10 blankets.

Once arrived in New Orleans, conditions did not improve. When the transports arrived in the crowded port, no provisions had been made to evacuate non-ambulatory

⁵³ Allan Peskin, ed., *Volunteers: The Mexican War Journals of Private Richard Coulter and Sergeant Thomas Barclay, Company E, Second Pennsylvania Infantry* (Kent: The Kent State University Press, 1991), 18.

⁵⁴ Love, 32.

patients to hospitals. Instead, the volunteer surgeons hired hourly hacks, cabs, and carriages. This solution created a host of problems. First, livery drivers were not trained for patient transport. Second, they were expensive. Instead of having a dedicated wagon system with trained personnel, the army relied on *ad hoc* outside sources to care for its sick. Sick soldiers were initially taken to a variety of private hospitals and homes. It was, then, the responsibility of the surgeon to individually check on each soldier, wasting additional time and transportation resources to move between the different locations.⁵⁵



Figure 8. Jackson Barracks (New Orleans Barracks) ca. 1861

Source: State Library of Louisiana Digital Library, “United States Barracks in New Orleans Louisiana during Civil War,” accessed 1 December 2014, <http://cdm16313.contentdm.oclc.org/cdm/singleitem/collection/LHP/id/1304/rec/5>.

The army did not establish a military hospital for the sick in New Orleans until after the number of patients overwhelmed local resources. On 21 January 1847, Brigadier

⁵⁵ *Ibid.*, 29, 40-41.

General George Brooke established a hospital at the converted New Orleans/Jackson Barracks. The surgeon responsible for the hospital was Assistant Surgeon William James Sloan. The Jackson Hospital accommodated only 36 patients with “matrasses and hospital attention.” Other sick soldiers were placed on the floor in a room with a fireplace. If they possessed a blanket, it was placed under them for a modicum of comfort, but, most soldiers did not have a blanket and laid upon the bare floor. These soldiers did not receive medical attention. Any soldier who chose not to go to the military hospital paid for his own medical care at a private hospital or house.⁵⁶

Surgeon General Lawson finally arrived in New Orleans in early December 1846. Whether during peacetime or the Indian conflicts, the sickness rate in the army was always high, especially among new recruits. Therefore, it was prudent to begin setting up facilities, even temporary ones, to receive sick soldiers ahead of their arrival. Instead, the AMEDD delayed and did not begin setting up facilities until after sick soldiers overwhelmed local resources. Again, the AMEDD proved ill prepared to handle the large influx of individuals in support of combat operations. Additionally, Lawson quickly criticized volunteer surgeons for wasting resources by allowing soldiers to utilize private hospitals. Even if a soldier was paying for the care he received in a private hospital, the military or volunteer surgeon was required to visit daily at government expense. This expended time, transportation, and financial resources. The alternative for a sick soldier was a hard floor and no medical attention; knowing this, it is understandable why soldiers were reluctant to seek care from a military hospital and why commanders of volunteer units allowed their men to seek care in private facilities.

⁵⁶ Ibid., 35.

Soldiers not at the military hospital or able to pay for a private hospital lived at the encampment site. Seriously ill soldiers, some without tents, slept on the wet, muddy ground with only a blanket. Love complained about the lack of individuals to assist in nursing sick patients and of most basic supplies and medications. For example, he requested spoons and tin cups for medicine, cloth, cayenne pepper, ginger, and sage. Even in the 1800s, these were not rare, expensive items. Lawson denied Love's request outright, insisting he utilize the easier to obtain quinine instead. This again manifested Lawson's stubborn nature.

There is a difference between the deprivations of a 19th century soldier in the midst of battle and the conditions in New Orleans. New Orleans was still within the United States and, thus, within reach of the army's supply depots. Items continued to be shipped via New York at Lawson's insistence, and Lawson allowed little leeway for surgeons to obtain what they felt they required to adequately care for soldiers before deploying into Mexico.

The future location of a battle is uncertain at best because it is influenced by enemy actions, so setting up facilities at a forward location ahead of a battle is inadvisable. If the AMEDD's failure to stage medical resources into Mexico is understandable, the failure to do so in New Orleans is not. The AMEDD leadership knew soldiers were going to be mustered in New Orleans! The meticulous recordkeeping required of surgeons and assistant surgeons in the army, the frequency of submission to the surgeon general's office, and the experience of Taylor's army meant that the illness rate in the military should have come as no surprise to Lawson. Had the AMEDD prepared supplies and infrastructure for soldiers ahead of their arrival, it would have kept

many of those cases from becoming fatal by providing adequate shelter and nutritional support although it would not have affected the rate of disease among the unseasoned volunteers.

Soldiers embarking for Mexico from New Orleans only saw circumstances worsen. The conditions aboard ships on the Mississippi River did not differ greatly from the conditions aboard transport ships between New Orleans and Mexico or the transport ships utilized by General Taylor's forces on the Rio Grande. This being said, soldiers travelling from New Orleans experienced the worst conditions. They complained that the ships were made of unseasoned wood, and, consequently, when below deck, the condensation from perspiration, other bodily fluids, and wet equipment dripped down upon them as they slept. While the officers were not responsible for preparing their own meals, the enlisted men were. Officers ate their meals in a dining room; on the other hand, soldiers drew rations and prepared their meals at small communal fireplaces.

The army did, however, try at least to station one surgeon or physician aboard each transport ship. For example, Surgeon Love travelled to Lobos Island and the Mexican mainland with his Mississippi volunteers aboard one of these transports. He described the overcrowding with some 300 men crammed into the spaces between decks, the sick mixing with the healthy. The soldiers were not permitted to lay straw down, so they slept upon the damp wood with wet blankets. Upon the ship, Love again complained of the shortage of medicines and admitted to purchasing, at his own expense, the simplest supplies of cayenne pepper and peppermint.⁵⁷

⁵⁷ Love, 42-44.

After leaving port and travelling through the Gulf of Mexico, conditions did not improve. While Dr. Love hoped the illnesses would abate, but the fact that sick men were put in close quarters with healthy ones only meant that sickness would continue to spread. Love lists several soldiers who received burials at sea after a bout with the same diseases that plagued the volunteers in New Orleans. The lower socio-economic status of many enlisted men, whether volunteer or regular, meant that they were less attuned to sanitary needs. The regular army had sanitary regulations in place, volunteer units did not. While commanders within the regular army often consulted with an officer of the AMEDD regarding sanitation, Dr. Love reports that this was not the case aboard his transport ship; only after more than a week at sea did the ranking officer on board finally mandate that soldiers police their areas to improve sanitation.⁵⁸

The difficulties aboard the transports illustrate two of the challenges of the AMEDD. Aboard the ship, there was but one surgeon and, in some cases, an assistant. Aboard Love's ship, he had one assistant physician, and there were 300 enlisted soldiers, plus officers. Once at sea, seasickness increased the workload for the surgeon and his assistant. Because there were no trained hospital stewards or nurses, surgeons tasked low-ranking soldiers to tend to ill comrades. Love often complained that they derelicted their duty, but found little support from his superior officers. In one example, Love recounted that he saw men detailed to nurse a sick soldier playing cards while ignoring his pleas for water.

The lack of rank and equal standing of medical personnel complicated matters. For example, when trying to obtain personnel to act as nurses, Love was subject to

⁵⁸ Ibid., 49-56.

ridicule and humiliation. Being a medical officer was a thankless job, and even worse if you were a volunteer medical officer. Having equal rank to line officers in practice, not just on paper for pay, would have gone a long way to ensuring Love's ability to appoint nurses and stewards and to hold soldiers accountable.

The struggles prevalent before the opening battles of the war and aboard the transports would only be compounded once the fighting began. Both volunteer and regular army surgeons experienced the same high rates of illness, but also the added demands of caring for their the wounded, both their own and the enemy's.

Taylor's Army: Palo Alto to Buena Vista

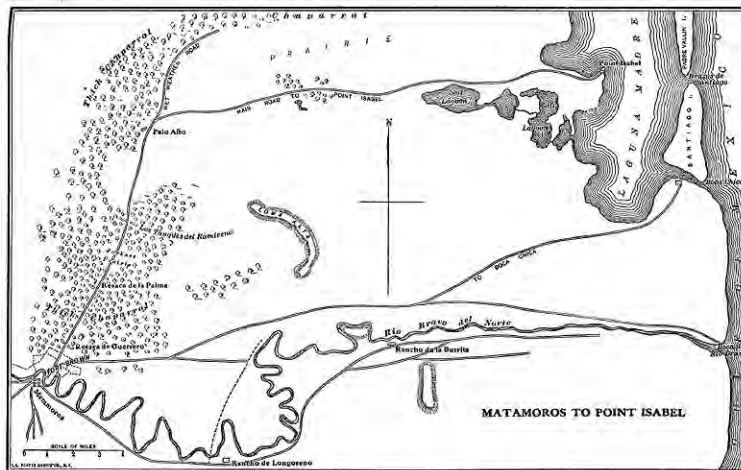


Figure 9. Map of Matamoros, Mexico to Point Isabel (now Port Isabel, TX)

Source: Virginia Tech Imagebase, "US and Mexico, Vol 2, Pg 150 Op: Matamoros to Point Isabel," accessed 1 September 2014, http://imagebase.lib.vt.edu/view_record.php?URN=DLMW158.

After Taylor left Corpus Christi in March 1846, he established his troops at Point Isabel along the Texas coast and inland at Fort Brown, across the Rio Grande from Matamoros, Mexico. On 8 and 9 May 1846, his army engaged in the Battles of Palo Alto and Resaca de la Palma. Successful in both endeavors, his army occupied Matamoros on 12 May. By late September 1846, the army occupied the provincial capital of Monterrey. Taylor's army remained in Monterrey until November when they pushed south to Saltillo and, finally, Buena Vista.

The casualties from both Palo Alto and Resaca de la Palma were not particularly high; however, even the small number of wounded Mexicans and American soldiers placed a large strain on the medical officers present. At Palo Alto, there were 10 killed and 44 wounded; at Resaca de la Palma there were 39 killed and 90 wounded. On the Mexican side, there were approximately 252 killed and wounded at Palo Alto and approximately 802 killed and wounded at Resaca de la Palma. Porter notes that at both Palo Alto and Resaca de la Palma a "large number" of wounded Mexican officers and soldiers received care from the Americans. Taking Monterrey resulted in a further 122 killed and 368 wounded. Buena Vista was the greatest test of the army in Northern Mexico. There, Taylor's army saw 267 troops killed, 456 wounded, and 23 missing. The Mexicans saw approximately 370 killed and wounded. In addition to the wounded were the over 500 sick at Monterrey.⁵⁹

⁵⁹ Duncan, "Medical History of General Zachary Taylor's Army of Occupation in Texas and Mexico, 1845-1847," 89, 101; Porter, "Medical and Surgical Notes of Campaigns in The War with Mexico, during the Years 1845, 1846, 1847, and 1848," *The American Journal of the Medical Sciences* (1827-1924) (January 1852): 9.

According to Surgeon Porter, the Battle of Palo Alto began at approximately 3 pm on 8 May. The surgeons present cared for the wounded of both sides. In response to the battle, a hospital was established at Point Isabel on 9 April and a purveyor's depot later in the month. By the afternoon of the 9th, surgeons present with the army at Palo Alto pushed forward towards Matamoros. That day, a young lieutenant accidentally shot himself. Porter was the surgeon in closest proximity, so he came to the lieutenant's location and performed surgery to remove the bullet. When Porter's unit marched off towards Matamoros, he turned the lieutenant over to another doctor, a "medical officer in reserve." From his classification of this other doctor, it is likely that he was not a surgeon of the regular army, or Porter would have mentioned him by name. This example as a whole illustrates several of the inefficiencies of the organizational structure. First, surgeons performed the role of what today we call a combat medic. This illustrates the need for men trained in patient transport. It also causes one to question whether a surgeon's special skill were most efficiently used when performing care on the frontline. Given the small number of deployed surgeons, one wonders how many wounded men went untreated as surgeons patrolled the battlefield. Second, from Porter's writings, it does not appear that there was a clear delineation of which doctors were going to march with the army, which were staying at Palo Alto until the last patient was moved, and which were going to Point Isabel. Ideally, there should have been a regular army physician located at each point.⁶⁰ In sum, it seems clear that what the AMMED lacked

⁶⁰ Porter, "Medical and Surgical Notes of Campaigns in The War with Mexico, during the Years 1845, 1846, 1847, and 1848," *The American Journal of the Medical Sciences (1827-1924)* (January 1852): 8-9, Duncan, "Medical History of General Zachary Taylor's Army of Occupation in Texas and Mexico, 1845-1847," 100.

was a rational and universally understood *system* for forward patient care; they continued to employ practices that had served them well in garrison but failed to meet the demands of wartime.

As the army moved from Palo Alto towards Matamoros on 9 April, it encountered the Mexicans at Resaca de la Palma. Again, the surgeons cared for the wounded of both armies, stretching men and resources to the limit. After this battle, Surgeons Porter and Wright were the only two medical providers left with their brigade because their assistants had been detached to other duty. While Porter does not specifically state the number of soldiers in the brigade, it appears to have consisted of dragoons, two batteries, an artillery battalion, and four infantry battalions. Additionally, while the official reports state that 90 were wounded, this does not include those among the 39 killed who were not instantly killed. Mortally wounded soldiers also received care from the surgeons prior to death.⁶¹ In the midst of an environment where the surgeons were solely responsible for the care of their own soldiers and the enemy's, line officers could detail their assistants to non-medical duty. Not only did AMMED have internal organizational issues, the second-class status of medical officers only added to the problems they confronted.

The 10th and 11th of May was spent transporting wounded soldiers to the hospital at Point Isabel. On 12 May, the American surgeons sent wounded Mexican soldiers to Matamoros to be cared for by their own army. Taylor's army entered and occupied Matamoros on 18 May. Once inside the city, the surgeons of the AMEDD found hundreds of abandoned, wounded Mexican soldiers. Undoubtedly, many of these men were the ones sent over by the army less than a week earlier. Wounded and dying

⁶¹ Porter does not use his first name, but it was likely Surgeon Joseph B. Wright.

Mexican soldiers filled several makeshift hospitals. An army captain, upon seeing the condition of the Mexican wounded, was shocked at what little attention the soldiers received. Once inside Matamoros, the enemy wounded again became the responsibility of American surgeons, placing further strain on the resources of the department.⁶²

The most common surgeons' complaints after both Palo Alto and Resaca de la Palma was how quickly infections developed in newly treated wounds. Surgeon Jarvis lamented how almost immediately after amputation a wound became infested with maggots.⁶³ He attributed the infections to supernatural causes, not realizing his own instruments spread the infection.

Besides the wounds received in battle, the health of the army at Palo Alto and Resaca de la Palma was good. According to Surgeons Porter and Jarvis, this was because of the seasoning period experienced at Corpus Christi, the high-quality diet obtained locally, and the fact that "invalid and worthless troops" were left back at Corpus Christi and Point Isabel.⁶⁴

⁶² Duncan, "Medical History of General Zachary Taylor's Army of Occupation in Texas and Mexico, 1845-1847," 91.

⁶³ Maggots are useful for debridement of wounds and intentionally placing them there has been used since at least the 1700s. Confederate doctors during the American Civil War made observations about how they only ate the dead tissue and used them therapeutically by the end of the war. Jarvis was probably just puzzled as to how they got there if he did not intentionally place them. Only certain species of fly will feed exclusively on dead tissue; some prefer live tissue while others will feed on both.

⁶⁴ Duncan, "Medical History of General Zachary Taylor's Army of Occupation in Texas and Mexico, 1845-1847," 95; Porter, "Medical and Surgical Notes of Campaigns in The War with Mexico, during the Years 1845, 1846, 1847, and 1848," *The American Journal of the Medical Sciences* (1827-1924) (January 1852): 21.

Once the Taylor's army captured Monterrey, the sick and wounded experienced one of the best hospital facilities of the war. The army converted Mexican General Arista's palace into a regimental hospital. Despite the lavish quarters and abundance of fresh fruit on the grounds, the surgeons were still overwhelmed by the sheer number of patients. Captain Henry of Worth's Division stated that the wounded did as well as could be expected given the inadequate supplies provided to the surgeons and the shortage of surgeons: "There was a culpable negligence somewhere in not sending more medical officers into the field . . . *one* surgeon attended *two* regiments, *four* being the usual number in peacetime." As the war dragged on, the shortage of medical personnel became increasingly evident to officers outside the department.

Hostilities at Buena Vista began on 22 February 1847 with a preliminary skirmish, and the heavy fighting commenced on 23 February. As before, surgeons attended wounded on the field and were then removed to either the cathedral in Saltillo, which was converted into a hospital, or *Rancheria de Buena Vista*, a general field hospital near the battlefield.

The conditions at both Saltillo and *Rancheria* quickly deteriorated. The church was overcrowded and simply could not house all of the casualties. According to Dr. W. B. Herrick of the 1st Illinois Volunteer Infantry, at *Rancheria*, the wounded, dying, and dead were indiscriminately packed together. It was four days until those still living were conveyed to another temporary hospital. Still other wounded soldiers were placed in private residences. Herrick states that, after "proper requisition," he possessed adequate supplies to care for his patients. This is likely an accurate statement because the purveyor depot was only approximately 300 miles away, and he acknowledged that he properly

requested supplies. Many volunteer and contract surgeons, however, did not understand or follow the proper protocol to request supplies. The hasty admission of them into the army left little time for training. It is also important to note that Herrick was not seeking medicinal supplies, he most frequently requested bandages and lint dressings, two items easier to obtain and less likely to be damaged during transport.⁶⁵

After the battle, both General Taylor and Dr. Herrick noted that a large number of Mexican wounded had been left upon the field. Those soldiers were also transported to the facilities at Saltillo and largely cared for by American surgeons, although there were also some Mexican surgeons. At one point, patrols discovered another 200 wounded Mexican soldiers strewn along the road to Encarnacion. In a letter published in the *Richmond Whig*, a soldier wrote of the improving health of the American wounded and the deplorable conditions among the Mexican ones. He painted a scene portraying the American hospitals as ideal, with patients having all their wants met. While he certainly embellished for the sake of the readership, once soldiers were removed to more suitable locations within Saltillo, their condition did improve.⁶⁶

Although Taylor's army experienced high illness rates at several points, overall the health of his army proved good because most soldiers recovered and returned to duty or swiftly returned to Point Isabel or Corpus Christi. Additionally, the surgeons who cared for it were generally adequately supplied. Porter attributes the swift recovery time

⁶⁵ Duncan, "Medical History of General Zachary Taylor's Army of Occupation in Texas and Mexico, 1845-1847," 100-101.

⁶⁶ Duncan, "Medical History of General Zachary Taylor's Army of Occupation in Texas and Mexico, 1845-1847," 101; "Letter from Gen Taylor's Army," *Richmond Whig*, 14 May 1847, <http://www.history.vt.edu/MxAmWar/Newspapers/RW/RW1847eJanJune.htm#aRW24i39p2c4Seat>.

to the climate of the area that particular year. According to Porter, the residents of Matamoros claimed that when the Rio Grande was navigable and the lakes around town are full, the summer is healthy. In the summer of 1846, the river was navigable by steamboats because heavy rains fell in May and June. Most likely, this cleaned the area's water supply reducing many waterborne illnesses.⁶⁷ The ease of supply is because of the relatively close proximity of purveyor's depots. In addition to the one at the mouth of the Rio Grande, there was also a major medical depot located in San Antonio, Texas. This depot supplied the smaller one located at Point Isabel, rendering it easier to obtain supplies. Each were amply supplied with what Taylor's surgeons used most, quinine, and simple dressings for wounds.

Along the National Road: Scott's Army

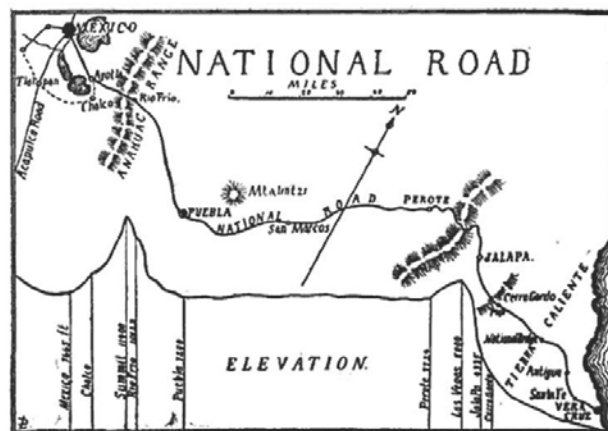


Figure 10. Map of the National Road from Veracruz, Mexico to Mexico City, Mexico

Source: Louis C. Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," *The Military Surgeon* (1921): 18, Google Books, 450.

⁶⁷ In 1847 the opposite was true. The river was quite low and the illness and mortality rate much higher.

By the time Scott's army made its way to Veracruz, the US-Mexican War had been in progress for almost a year. Despite the inadequate amount of medical providers in Taylor's army, the situation was little better in Scott's. Scott's army had about one surgeon for every 500 soldiers. Even President Polk remarked in December 1847 that the primary cause of suffering among sick and injured soldiers was the lack of sufficient medical personnel and of clear orders dictating which doctors went where. These challenges would combine with inadequate logistics and a lack of support personnel to become a complex and recurring problem throughout Scott's campaign. In sum, the regimental and general hospitals in Scott's army were woefully under supplied and lacked sufficient personnel, furniture, clothing, bedding, medicine, and food.⁶⁸

Both Taylor's and Scott's forces experienced a shortage of surgeons and support personnel. However, the surgeons with Scott faced supply shortages unlike the surgeons with Taylor. This may be attributed to several factors. Scott's surgeons received their supplies via New York by way of New Orleans. When the medical depot was established in New Orleans only enough supplies were requisitioned to care for the army at pre-war strength. Additionally, the influx of sick soldiers before the start of the expedition taxed medicinal and hospital stores. Second, unlike Taylor's forces that largely received supply overland, Scott's forces required items to be transported on the Gulf of Mexico, then inland. In the 19th century and continuing through World War I, medical supply was the lowest shipping priority and essentially shipped on a space-available basis. Furthermore, the actual distance between San Antonio and Point Isabel was significantly shorter than

⁶⁸ Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," 438.

the distance between New Orleans and Veracruz. These factors combined to worsen the supply situation for Scott's medical personnel.

As bad as things were, the esteem of Scott's medical personnel was probably better than anywhere else in the regular army. General Scott and Surgeon General Lawson were good friends, and, in December 1846, Scott invited Lawson to accompany him on his campaign to Mexico City. Lawson could have used his relationship with Scott to his advantage to press Congress into expanding his department, but he did not. Scott was willing to be an ally to Lawson, as evidenced by the measures Lawson recommended that were approved by Scott and adopted by Congress after the war. Those measures will be discussed in the final chapter. Scott also seemed to be more attuned to the effects of illness on the army and sometimes planned his movements to mitigate diseases, as he did at Veracruz with yellow fever, the infamous "yellow jack" of soldier lore.

On 9 March 1847, ten months after the battle of Resaca de la Palma, Scott's nearly 13,500 men began landing near Veracruz. The siege and bombardment commenced on 22 March, and the US troops occupied Veracruz by 29 March. The US army and navy lost 26 men and had 59 wounded, three mortally. The Mexicans suffered much more with approximately 400 killed and 600 wounded. The wounded Americans were treated in poorly equipped regimental hospitals until a general hospital was established in a Franciscan convent. During the battle, the surgeons attached to the army served on the line while musicians of the 4th US Infantry worked as stretcher bearers and field medics. James D. Elderkin, a musician previously trained as a hospital steward, was initially tasked as a litter bearer. Colonel Garland pulled him from that duty and reassigned him as a courier to bring dispatches to General Worth. This example illustrates

exactly why soldiers assigned exclusively to the AMEDD and rank within the department was so important. First, out of all the musicians acting as field medics, Garland chose the only one who already had considerable medical experience. Whether or not Garland knew that is irrelevant. The tasking and reassignment of medical personnel should have been through the senior AMEDD officer present. Because of the lack of so-called “official” rank, this was not a courtesy extended to surgeons in the field. It is likely that Garland chose Elkridge because he was competent, but that was precisely the type of soldier who made an excellent medical asset in combat.⁶⁹

Surgeon John Porter, now attached to Scott’s forces, was placed in charge of the general hospital at Veracruz. He described the conditions and staff of the hospital in his diary:

There was not a single steward except invalids and incompetent ones; an invalid wardmaster; no well men left for cooks and nurses, when the army marched away. There was not a single kitchen, table, bench, bunk, privy, chamber utensil . . . there was nothing but the miserable sick. *Hoc labor, hic opus est.*

Porter’s permanent general hospital housed not only the sick and wounded from Veracruz, but also those who became ill as they marched inland. Essentially, this was the base hospital for the entire expedition to Mexico City and would be in operation through March 1848. Adding to the strain on the US surgeons in Veracruz were the terms of the *Articles of Capitulation of the City of Vera Cruz and the Castle of San Juan de Ulloa* from 27 March. Paragraph six states that the sick and wounded Mexican soldiers were

⁶⁹ James Elderkin, *Biographical Sketches and Anecdotes of a Soldier of Three Wars, as Written by Himself: The Florida, the Mexican War and the Great Rebellion, Together with Sketches of Travel, Also of Service in a Militia Company and a Member of the Detroit Light Guard Band for Over Thirty Years* (Detroit: James D. Elderkin, 1899), Google Books, 28, 60; Duncan, “Medical History of General Scott’s Campaign to the City of Mexico in 1847,” 444.

permitted to remain in the city with a contingent of their own surgeons. However, once the capacity of the convent was exceeded the army took possession of the Mexican hospital for its own wounded. There they found the Mexican wounded in a poor state with less care than the Americans. Surgeon Porter created a staff from among the convalescents, men who were sick but ambulatory, once again illustrating the need for trained hospital staff that would not depart once they recuperated.⁷⁰

The decision to use Veracruz as a base was not an impromptu decision. As Scott staged and assembled his soldiers on the Mexican mainland at Tampico, he developed detailed plans to lay siege to and occupied Veracruz, and to use it as base to support the push forward to Mexico City. Accompanying Scott, Lawson certainly would have been aware of these plans and should have taken steps to prepare items to be used in the establishment of the general hospital. Instead, the hospital was operational for more than a week before quartermasters provided blankets or food. A lack of guidance about who stayed and who marched compounded the issues at Veracruz. Initially, Porter had a few other physicians at the hospital with him, but by April 18th, only he and Surgeon Laub remained. All other medical providers moved forward to Jalapa. To remedy the lack of personnel, the AMEDD was again forced to rely on contract surgeons who possessed “the nature of beachcombers.” It would be weeks before more competent contract surgeons could be secured. Meanwhile, sick and wounded soldiers paid the price for this lack of foresight.

⁷⁰ Quote from: John B. Porter, “Medical and Surgical Notes of Campaigns in Teh War with Mexico, during the Years 1845, 1846, 1847, and 1848,” *The American Journal of the Medical Sciences (1827-1924)* 52 (October 1853): 312, ProQuest. The Latin translates to “this is the hard work; this is the toil.” Duncan, “Medical History of General Scott’s Campaign to the City of Mexico in 1847,” 444.

Veracruz was an especially sickly place where battalions could be “melted away like snow-flakes.” The greatest threat to the army was not the Mexicans, but the prevalent diseases. Soldiers mused that General Santa Ana’s goal was to keep the American forces in Veracruz for as long as possible so they may succumb to the *vomito*. As mentioned earlier, Scott, having served in Florida fighting the Seminoles, was particularly attuned to the effects of disease on his army and in response to reports of the advent of yellow fever, decided to press on along the National Road towards Cerro Gordo. A lack of adequate transportation resulted in only bringing the bare minimum food and supplies. During the march to Cerro Gordo, soldiers found themselves poorly clothed, ill fed, and without shelter. This increased the rate of illness. The situation would only worsen when the Americans encountered a fortified Mexican army at Cerro Gordo.⁷¹

By 16 April, most of the soldiers arrived just outside Cerro Gordo and prepared for the battle. A temporary hospital for the sick who had marched out of Veracruz and the inevitable casualties was established in the village of Plan del Rio in some huts. On the 18th, the Americans won, capturing 3,000 Mexican prisoners and the supplies and baggage of the Mexican army. The aftermath of the carnage was described in an article in the *Richmond Whig*: “Dead bodies strewn along the road, Mexican and American wounded intermingled with the dead, surgeons moving among them amputating as necessary.” Again, the lack of individuals trained in patient transport meant many times surgeons went among the wounded during the battle and directed only those who could

⁷¹ H. Judge Moore, *Scott’s Campaign in Mexico; from the Rendezvous on the Island of Lobos to the Taking of the City, Including an Account of the Siege of Puebla, with Sketches of the Country, and Manners and Customs of the Inhabitants* (Charleston: J. B. Nixon, Publisher, 1849), Kindle Edition, 66.

walk towards the hospital. Those that could not remained on the battlefield until loaded in the single quartermaster wagon temporarily designated for casualty transport. This was hardly an efficient system as the surgeon's talents would better serve the wounded at the hospital, not triaging and determining which patients were ambulatory in the field. However, this method remained a standard operating procedure in the American Army until observers returned from the Crimean War implemented changes during the American Civil War.⁷²

Conditions in the makeshift hospitals in Plan del Rio were poor. There were no furniture or materials; surgeons only had what they carried to care for the ill and injured. Men were rested on blankets, left in clothing stiff with blood. Despite these conditions, reports from commanders pointed out the dedication of the surgeons, but Lieutenant Coppee of Company I, 1st Artillery lamented that surgeons passing through should have stayed at the hospital. Even when the general hospital was overwhelmed with patients, regimental surgeons did not remain behind when their regiment marched off because they did not have orders to do so. Coppee's unit had been left behind to care for the wounded along with one regular army surgeon, Surgeon Henry Steiner. He noted that Steiner received no help from Mexican surgeons, despite also caring for Mexican wounded. Despite having no medical experience, Coppee was still responsible for restraining patients during amputation surgery. This is a manifestation of three of the main challenges for the AMEDD. The short staff meant that no more than one surgeon could be spared by the regimental commanders for hospital work. The lack of recognized rank

⁷² MSH, "Further Details of the Battle," *Richmond Whig*, 11 May 1847, accessed 1 February 2015, <http://www.history.vt.edu/MxAmWar/Newspapers/RW/RW1847eJanJune.htm#aRW24i41p1c4Seat>.

meant that a surgeon with a regiment could not insist that he remain at a hospital or direct an assistant be left behind. Finally, the lack of a policy dictating how many surgeons moved forward with a regiment and how many stayed at the hospital abdicated this decision to regimental commanders, who often made decisions at odds with what would have been best for the wounded soldiers.⁷³

Eventually, a supply convoy returning to Veracruz carried those well enough to be moved but too sick to return to duty back to the general hospital. The remaining soldiers either stayed at Plan del Rio or were transported forward towards Jalapa by a supply column. While we know little about how this process worked, it is likely those with a longer convalescence were sent back to Veracruz while those appearing to be recovering quickly were sent forward to Jalapa in anticipation of returning to duty. The army entered Jalapa on 20 April and established a hospital there on 21 April. At Jalapa, the regular army camped inside the city while the volunteers camped in fields without tents outside the city.

When Scott made the tactical decision to depart Veracruz immediately upon reports of yellow fever, he had not received the full complement of wagons he requested. This placed space aboard the wagons at a premium and food, fodder, and ammunition was top priority. The surgeons only had one wagon dedicated to medical supply. This meant insufficient medical resources for the army on the march and during an encampment. Surgeons frequently improvised to provide care. For example, emergency shelter for sick soldiers was constructed by spreading clothes and blankets over shrubs.

⁷³ Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," 454.

Obviously, this provided minimal protection from the elements. Meanwhile, diarrhea and measles ravaged the soldiers in the unsanitary encampments. Adding to the poor conditions was the fact that many soldiers, both regulars and volunteers, had lost what little extra clothing or outerwear they had. Because extra clothing was not a priority, many soldiers were poorly attired. General Scott seemed to understand the low priority given to medical supply and the importance of medical supply and hospital stores to the health of the army. When requesting resupply from Veracruz, he directed that medicines and hospital stores, in addition to ammunition and provisions for the animals be brought up.

Assistant Surgeon Adam N. McLaren established a temporary general hospital in the convents of the town, which operated until the end of June. The hospital tended to just under 1,000 patients with a mortality rate of approximately one out of five. At that rate, it was *more dangerous* to enter the hospital than a battle!

Conditions in this hospital were worse than any thus far. Sick and injured soldiers lay either upon dirty blankets or the bare brick floor; vermin infected most. As many of these men wasted away from diarrhea, the diet of coffee and bread did nothing to alleviate their sufferings. A former soldier of the British Army, George Ballentine, who accompanied the Americans during the war pondered why the money captured at Cerro Gordo was not used to pay poor local women to tend to the sick and to procure adequate medical supplies to treat them.⁷⁴ When General Twiggs' division departed Jalapa in May, some Pennsylvania volunteers were charged with defending the garrison and hospital.

⁷⁴ Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," 456; George Ballentine, *Autobiography of an English Soldier in the United*

It can be argued that the hospital was so destitute because it was hastily established so soon after the battle. However, the hospital was again occupied in November, and Surgeon Otis Hoyt of the Massachusetts Regiment found it in the same condition. There were no cots or bedding; no means to prepare food. It appeared as if the hospital was never adequately equipped to at least allow sick soldiers to rest off the ground or to feed them. In November, Hoyt attributed the condition of the hospital to the large percentage of deaths. In December 1847, one in four who entered the hospital at Jalapa died. These soldiers died of neglect because the AMEDD was structured to care for an army in peacetime and not war.

During the march towards Mexico City, General Worth did not halt at Jalapa, but kept marching on to Perote. Another, smaller hospital was established there on 23 April by a Pennsylvanian surgeon, John Reynolds. At this small hospital, he cared for the sick of Perote and the sick of units marching through. When the operations ceased at the Jalapa hospital in June, Surgeon McLaren left Jalapa and assumed responsibility for the hospital at Perote, now the only one between Veracruz and Puebla. Approximately four patients died there per day due to disease. McLaren attributed the high mortality rate to the arduous march endured by sick soldiers without shelter or adequate clothing. The hospital became dangerously crowded, and it became necessary to occupy “bombproofs” as sick wards.⁷⁵

States Army, Comprising Observations and Adventures in the States and Mexico (New York: Stringer and Townsend, 1853), Google Books, 206-208.

⁷⁵ Duncan “Medical History of General Scott’s Campaign to the City of Mexico in 1847,” 458.

The illness rate and the expiration of enlistment terms for volunteers severely depleted the army so that by early June there were not enough soldiers to effectively garrison both Jalapa and Perote. On 3 June, General Scott wrote to the garrison commander at Jalapa telling him to abandon the city. As for the sick, Scott sent 200 wagons to Jalapa to move those considered well enough to Perote. Soldiers too sick for transport were left in a “consecrated place, under the safeguard of the Church and civil authorities.” One medical officer and “necessary attendants” also stayed behind. Scott promised to return to Jalapa and “punish the entire city in the most signal manner” if harm were to come to those left behind because “military hospitals are invariably regarded by civilized nations as sacred.”⁷⁶

From 18 June to 30 June, the only individuals remaining in Jalapa were a surgeon, attendants, and those too sick to travel. Because there was no trained medical support corps, those who were left behind, as was typical of those tasked with assisting the surgeons, were the undesirables of the army, probably ambulatory sick themselves. General Orders Number 123, issued by General Scott at Jalapa on 30 April 1847, reinforces the notion that the sick and others unfit for the army would be left at the hospitals: “Every regiment that leaves wounded or sick men. . . will leave a number of attendants, according to the requisitions of the principal medical officer...Those least able to march will be selected as attendants.”⁷⁷

⁷⁶ Letters, General Scott to Colonel Childs (3 June 1847) in War Department, *Correspondence Between the Secretary of War and Generals Scott and Taylor, and Between General Scott and Mr. Trist*, Executive Document 56, 30th Cong., 1st Sess., House of Representatives, Google Books, 187-188.

⁷⁷ Winfield Scott, *Head-quarters of the Army, Puebla, June 3, 1847* in *Mexican Affairs and War, 1825-1848, Volume 2*, Google Ebook; General Orders quote from

The abandoning of Jalapa and the reinforcements of volunteers illustrate two of the difficulties the AMEDD faced. First, sick soldiers would be sent forward to Perote, placing further strain on the already overcrowded hospital as there were not enough medical personnel to adequately care for the sick soldiers already there. Additionally, after their miserable experiences in theater, many volunteers were not willing to reenlist. They had successfully passed through Veracruz, the sickest area of the country, and now they would be going back to the coast during the height of malaria and yellow fever season. Furthermore, the unseasoned soldiers coming through Veracruz were exposed the prevailing diseases with predictable results. The high sickness rate overwhelmed the resources at Veracruz and Perote. Before reaching the main body of the army where the action was, newly imported soldiers fell ill or became disheartened as they saw their comrades enter the hospital. As the reputation of military hospitals was not particularly good, soldiers transferred to the hospital were often perceived as already dead.⁷⁸

The march to La Puebla de las Angeles (Puebla) took a toll on the health of the army. H. Judge Moore, a member of the South Carolinian Palmetto Regiment, recounted an experience he had on the march to Puebla. He found himself dehydrated and straggling far behind the rest of his regiment. A Captain Blanding rode by on a wagon and stopped to assist him, ferrying him safely to the South Carolinians' camp. His reaction to Blanding's assistance is telling, "this act of kindness may appear to some as nothing more than the burden of duty of an officer towards a sick or disabled soldier, but

Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," 462.

⁷⁸ Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," 459.

still it was a favor by no means conferred in all cases by the gentlemen of the sword and epaulette.” Infantrymen, mounted soldiers, artillerymen concentrated on a single focus—defeat of the enemy. If an action did not support that goal, it was not worth consideration, including tending to the sick or wounded. Members of line units focused on the big picture, but the surgeons and assistant surgeons of the AMEDD recognized that individual soldiers were the pieces of that bigger picture. So, too, did many soldiers become inured, callous even, to the sufferings of others, especially those they did not know. Moore’s experience emphasizes the need for a larger trained medical corps. The surgeons and assistant surgeons of the AMEDD alone simply could not cope with the magnitude of the health problems experienced.⁷⁹

The Americans entered Puebla on 15 May, and, by the 29th, the entire army was there, save for the sick and the small garrisons at Veracruz and Perote. The diet for the soldiers at Puebla was considerably better due to an abundance of locally sourced food. What the army did not have was adequate shelter, and, thus, the rate of illness continued to increase. By 8 July, there were approximately 10,300 soldiers at Puebla, of which roughly 2,200 were sick. Again, the medical arrangements were not up to the task, which affected the day-to-day functioning of the army. With so many sick, ambulatory patients were placed on either full or part-time duty. Surgeons Charles Tripler and Henry Satterlee, the Medical Directors of General Twiggs’ and General Worth’s divisions respectively, attributed the illness rate to exposure, dietary changes, ignorance of army life, weak constitutions, and the weather.

⁷⁹ Moore, 88-89.

In response to the high rate of illness, Surgeon William J. Barry organized a hospital at Puebla. By the time the army departed in August, there were in excess of 2,000 soldiers in residence, which dwarfed the garrison of approximately 500. About 20 percent of admitted died. Disease threatened to destroy an army that the Mexicans proved unable to defeat in battle.

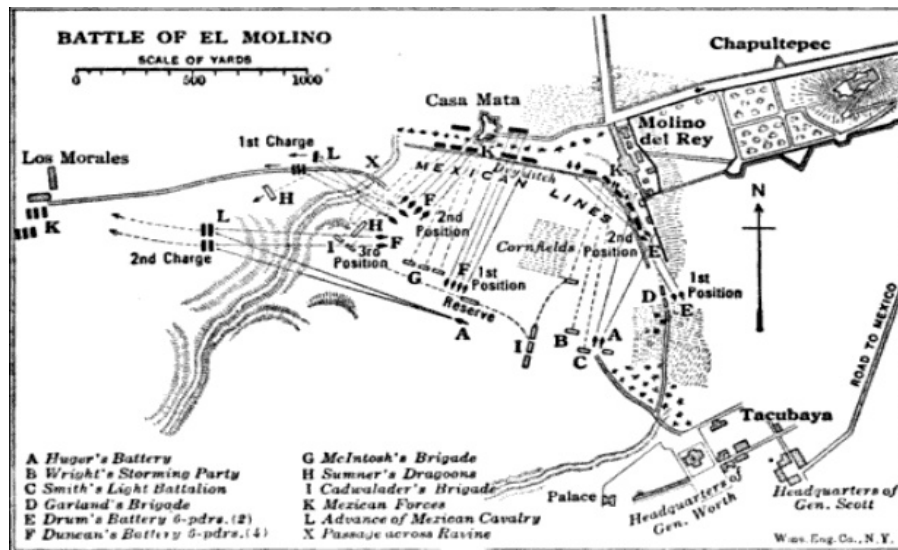


Figure 11. Map of the Battle of Molino del Rey

Source: Justin H. Smith, *The War With Mexico*, vol. 2 (New York: Macmillan Company, 1919), Google Books, 143.

By 18 August, Scott was only about ten miles from Mexico City. A general hospital and supply depot was established at San Augustin, a key junction along one of the main roads into the city. The Battle of Contreras commenced late in the day on 19 August and little was accomplished. During the night, some of the American forces repositioned themselves while surgeons went among the wounded and attempted to render aid. At 0300 on 20 August, the fighting recommenced. The battle ended swiftly

and the Mexican garrison was neutralized. Almost immediately, the army pushed forward towards the Mexican's main position at Churubusco. After the long and bloody battle, the Mexican line of defense was broken and the Mexican soldiers fled towards Mexico City. The 32 regular and volunteer surgeons, including Surgeon General Lawson, cared for the some 877 wounded American soldiers, 76 mortally wounded, from the Battles of Contreras and Churubusco.

Immediately after battle, but before transport to the San Augustine hospital, the wounded evacuated to a temporary holding area at Churubusco. Navy Lieutenant Ralphael Semmes, the aide de camp for General Worth, recounts the attempt to find and move the wounded off the battlefield before dark. Unfortunately many wounded soldiers remained on the field, exposed to the cold rain that fell through the night. On the 21st, a detail went out to collect and bury the dead and find "any unfortunate wounded who might not yet have been found."⁸⁰ After the battle, the mortality rate among the wounded was only 9 percent. This was another instance where a trained staff of medical personnel to collect and triage the wounded on the battlefield and an organized system to do so, could have saved lives.

Another hospital was set up at San Antonio so American physicians could care for the wounded of the Mexican army. Surgeon Porter reports that mortality among Mexican wounded treated by Mexican surgeons was between 50 and 75 percent. However, in the care of AMEDD surgeons, "not more than five or ten in a hundred died." According to reports, 12 Mexican soldiers died in the care of US surgeons. This combined with

⁸⁰ Ralphael Semmes, *Service Afloat and Ashore During the Mexican War* (Cincinnati: W. H. Moore and Company, 1851), Google Books, 408.

Porter's assertion meant that the US Army was caring for no less than 100 Mexican wounded.⁸¹

A short-lived armistice followed the two battles. As Scott progressed further, additional hospitals were set up at Mixcoac and in an archbishop's palace near Tacubaya. Additionally, a supply depot was also set up at Mixcoac. Surgeon Wright led the Mixcoac hospital and Assistant Surgeon Josiah Simpson led the hospital at the palace. By the time Scott reached the outskirts of Mexico City, the transportation situation had improved dramatically. Since in many of Scott's official correspondences he recognized the need to maintain hospital stores and medical supplies and by the time he reached Mexico City the army received all wagons requisitioned, it is reasonable to believe that the hospitals were as well equipped as possible.⁸²

The Battle of Molino del Rey on 8 September was the bloodiest of the war. Approximately 3,300 American troops engaged a Mexican force almost twice its size. American losses included 116 killed, 665 wounded, and 18 missing. Among the wounded was Surgeon James Simons and Assistant Surgeon William Roberts. Roberts was caring for wounded soldiers to the rear of the 5th Infantry in a small hollow. Upon seeing a lieutenant at the front fall, he rushed to the front of the formation and led the soldiers. He received a gunshot wound to the head and died about a month later. Injured soldiers were

⁸¹ Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," 470; Porter, "Medical and Surgical Notes of Campaigns in the War With Mexico, during the Years 1845, 1846, 1847, and 1848," *The American Journal of the Medical Sciences* (1827-1924) (October 1853): 326.

⁸² Gillette, *The Army Medical Department 1818-1865*, 120-121; Letters, General Scott (23 April 1847) in War Department, *Correspondence Between the Secretary of War and Generals Scott and Taylor, and Between General Scott and Mr. Trist*, 451, 453.

evacuated to the hospital at Tacubaya. Medical personnel present included Lawson and 11 other AMEDD surgeons. A few days after the battle, the Mexicans were within cannon range of the hospital, and patients were evacuated to the hospital at Mixcoac until the danger passed.⁸³

After Molino del Rey, the hill of Chapultepec and the gates of Mexico City lay between Scott's army and its objective. The Mexican forces held the castle at the top of the hill. During daylight on 12 September, Scott ordered the bombardment of the castle. The artillery barrage continued beginning at first light on 13 September until 0800 when Scott ordered an infantry attack. About an hour later, the Mexicans surrendered the castle and retreated into Mexico City. After capturing the castle, General John A. Quitman's division marched towards the Belen Gate while General Worth's division marched towards the San Cosme Gate; both attacked. On 14 September, the Mexicans proffered the surrender of Mexico City, effectively ending the active phase of the war. Of the 7,180 American soldiers engaged from 12-14 September 130 were killed, 703 wounded, and 29 missing.⁸⁴

As combat operations wound down, hospitals outside the city were consolidated into suitable buildings within the city. Regimental surgeons cared for the injured and sick of their own regiment under the supervision of the division surgeon. The surgeons believed the general hospital's buildings unsuitable for use as a hospital. As such, the

⁸³ Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," 688.

⁸⁴ Eba Anderson Lawton, ed, *An Artillery Officer in the Mexican War 1846-7: Letters of Robert Anderson, Captain 3rd Artillery U.S.A* (New York: G. P. Putnam's Sons, 1911), Google Books, 326; Gillette, *The Army Medical Department, 1818-1865*, 121.

illness rate continued as before. The buildings lacked proper ventilation, lighting, and heating.⁸⁵

After entering the city, Scott levied a tax of \$150,000 on Mexico City. Again showing his understanding of the importance of the medical mission, Scott allocated \$20,000 of the funds raised to care for the sick and cover hospital expenses. The army utilized funds to replenish hospital stores, including food and linens, using locally sourced items. Medicines still came from New Orleans via Veracruz.

The close of combat operations did not mean the end of disease problems. Volunteers continued to arrive in the country to bolster the occupying force. These men fell victim to same diseases as their predecessors in Veracruz and as they marched from the coast to Mexico City. Additionally, venereal diseases such as syphilis and gonorrhea began to appear at rates not seen since Saltillo. Despite the constant stream of sick soldiers, the number of patients at the hospitals actually declined so that by December the general hospital only occupied one building, instead of the four it originally occupied, under the direction of a surgeon and four assistant surgeons. October saw an illness rate of 68 percent; November, 26 percent; December, 25 percent. The numbers in the hospitals declined as more and more soldiers who were sick or wounded either returned to duty or returned to Veracruz via supply convoy.⁸⁶

By February of 1848, General Scott continued to write to the Secretary of War requesting more soldiers. The “war of masses” being over, Scott lamented that he did not

⁸⁵ Duncan, “Medical History of General Scott’s Campaign to the City of Mexico in 1847,” 692.

⁸⁶ *Ibid.*, 604.

have sufficient personnel for the “war of detail” ,that of occupation. Sickness rendered at least 4,000 of his 24,816 soldiers unfit for duty. Leaving him with almost 10,000 less fit men than the 30,000 men allotted to him by Washington. As the general hospitals closed, most soldiers received minimal care from the regimental surgeons; they may not have been admitted to a hospital, just too sick for duty. The general hospital only saw the most serious cases.⁸⁷

Conclusion

The actions of the department during the early days of the conflict demonstrate that it was not a learning organization. There seemed to be no attempt to apply lessons from early experiences to improve operations as the war progressed. Professional organizations will examine the data from past experience and use it to formulate plans and adapt as conditions change, this did not occur here. There was adequate time to learn from the difficulties experienced by Taylor at Corpus Christi to mitigate the same issues from occurring in New Orleans. Again, this did not occur, and, consequently, significant numbers of troops were struck down by illness before ever reaching the field of battle. Additionally, Lawson was quick to take exception with General Taylor when he requested additional personnel and advocated for his surgeons. While the supply situation for Taylor was much better than Scott’s, it should not be used as a gauge for the entire war. Scott’s supply lines were significantly longer than Taylor’s, and the transportation challenges experienced by Scott far exceeded anything experienced by Taylor. Through

⁸⁷ Letter, Scott to Secretary of War (2 February 1848), in War Department, *Correspondence Between the Secretary of War and Generals Scott and Taylor, and Between General Scott and Mr. Trist*, 272.

responses to Taylor's letters, Lawson maintained publically that the size of the department was adequate for its current operations, but he was using garrison operations as a measuring stick. It was standard at the time for one surgeon to care for 200 plus people in garrison or during short expeditions. However, the demands in garrison were almost completely different from the demands of extended-term expeditionary warfare. While the task of caring for sick and injured soldiers in theater proved challenging, it was but a prelude to the challenges presented by the influx of invalids and veterans returning to the United States.

CHAPTER 5

CONCLUSION: RETURNING HOME AND POST-WAR CHANGES



Figure 12. States and Territories of the United States Before the War

Source: University of Texas Libraries, “The Organization of Territories in the United States Since 1803,” accessed 1 September 2014, https://www.lib.utexas.edu/maps/historical/shepherd/us_expansion_shepherd.jpg.



Figure 13. States and Territories of the United States After the War

Source: University of Texas Libraries, “The Organization of Territories in the United States Since 1803,” accessed 1 September 2014, https://www.lib.utexas.edu/maps/historical/shepherd/us_expansion_shepherd.jpg.

The AMEDD handled returning soldiers home and transitioning to peacetime operations relatively well. The government took action on the recommendations of Lawson and Scott to establish short-term and long-term care facilities for invalids. After the war, the Treaty of Guadalupe Hidalgo placed what is now Texas west to California under the control of the United States, drastically increasing the military’s area of operations by almost 500,000 square miles.⁸⁸ Congress increased the size of the department, although the dramatic growth in the area of operations left the AMEDD in

⁸⁸ United States Census Bureau, “1840 Fast Facts,” accessed 1 May 2015, https://www.census.gov/history/www/through_the_decades/fast_facts/1840_fast_facts.html.

the same position as before the US-Mexican War—insufficiently staffed. As it had always done, the federal government provided veterans disabled during the conflict through either injury or disease with a pension. Pensions were also provided to orphaned children and widows. Lawson finally returned to his office in Washington in late 1848, where he led the department for another 13 years until his death on 15 May 1861.

Returning Home: Convalescence, Pensions, and Long-Term Care

While the AMEDD failed to learn from the experiences of Taylor's Army at Corpus Christi and adequately prepare to receive soldiers in New Orleans, it took some steps to receive invalids returning from combat and after the cessation of the conflict. However, these meager preparations were quickly overwhelmed. In addition to invalids requiring convalescence returning from Mexico, many more required long-term care. For soldiers returning to an extensive familial network, the care was received at home. For unsupported soldiers, there was not yet a system in place to care for them.

As early as fall of 1846, newspapers reported on the return of invalids from Mexico to New Orleans. These individuals either remained in New Orleans or were transferred to the arsenal at Baton Rouge, Jefferson Barracks in Missouri, or Fort Monroe in Virginia. The *Niles' National Register* reported on 3 October that 250 invalids were brought back from Matamorros and other Rio Grande towns. These soldiers were not cared for in military hospitals. At that time, the hospitals could not support the number of sick soldiers arriving from other parts of the United States. Invalids returning from combat were, then, placed in the New Orleans Charity Hospital, which was quickly

overcrowded.⁸⁹ As the number of soldiers arriving sick on their way to Mexico dwindled, the military hospitals established in the city remained open and received invalids returning to the United States. With Scott's forces, invalids returning to the United States remained at one of the hospitals between Veracruz and Mexico City until a supply convoy making the return trip to Veracruz carried them back to the coast. Once there, they were loaded onto open-deck transports and returned to New Orleans. The AMEDD required at least one surgeon aboard each of the transport ships. However, once again illustrating the various degrees of professionalism among volunteer surgeons, Surgeon Porter reported one instance where a volunteer surgeon, eager to return home, abandoned a transport ship full of 128 injured and sick soldiers immediately after arriving at the Crescent City. Of the 128, the ambulatory patients scattered about the city while eight were never accounted for.⁹⁰

Back in Washington, DC in 1847, acting Surgeon General Heiskell ordered sick and injured soldiers moved to a vacant hospital and barracks facility in Baton Rouge because New Orleans had become saturated with patients. When Lawson finally returned from Mexico in 1848, the situation in New Orleans was still critical. The preparation of medical facilities to receive veterans returning from Mexico was handled much like every other issue during the war—only when it became a problem. Instead of learning and adapting as the war progressed, the AMEDD continued with the status quo, reacting to

⁸⁹ *Niles National Register*, 3 October 1846

⁹⁰ Gillett, *The Army Medical Department 1818-1865*, 123; Porter, "Medical and Surgical Notes of Campaigns in the War With Mexico, during the Years 1845, 1846, 1847, and 1848," *The American Journal of the Medical Sciences (1827-1924)* (October 1853): 351-352.

issues rather than anticipating them; it did not, for example, take steps to recruit a body of competent contract physicians in New Orleans nor did it take steps to prepare more facilities to receive the sick. Before the US-Mexican War, the hospital in Baton Rouge was vacant; Lawson or Heiskell should have taken steps to prepare it to receive patients.

Remembering that sick soldiers lived in close quarters with healthy ones, sick soldiers often infected healthy ones. As soldiers journeyed home, many fell ill, primarily with dysentery, and infected people back home. For example, prior to the war in Massachusetts, the death rate from dysentery averaged 236 per year. From 1847 to 1850, it averaged between 1,074 and 2,455. Throughout New England, the South, and the West, reports from the American Medical Association showed an unusually high rate of dysentery. Additionally, the 1850 census reported over 20,000 dysentery-related deaths. Soldiers who contracted an illness while on active duty, but fell ill after discharge, did not receive care from the army and subsequently carried infections into their communities.⁹¹ While the AMEDD was not prepared to handle the influx of returning soldiers, the government continued its tradition of providing monetary compensation for veterans.

Since the close of the American Revolution, disabled veterans received pensions. However, although mandated by Congress, responsibility for payment was often left to the individual states, rendering payments sporadic at best. Shortly after the close of the US-Mexican War, Congress placed pensions under the purview of the Bureau of Pensions, predecessor to today's Department of Veteran's Affairs.⁹² Only after

⁹¹ Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," 604.

⁹² Pensions had been administered by a variety of organizations since 1799 until 1849 when the Commissioner of Pensions was transferred from the War Department to

examination by military physicians were pensions granted to disabled veterans of the war. At the close of the war, pension rates ranged from \$8 to \$17 per month, depending on rank. By 1862, the range increased to \$8 to \$30, again depending on rank. The American Civil War brought about the most changes in pension distribution because classes of disabilities were added. Changes made in the years during and after the Civil War affected the amounts received by veterans of the US-Mexican War. Originally the maximum amount enlisted soldiers could receive was \$8 per month, but a Congressional act in 1893 increased that amount to \$12 for certain veterans that were wholly disabled and destitute. As late as 1896, the government was still paying pensions totaling \$140 million to “invalids, widows, minor children, and dependent relatives, army nurses, survivors, and widows” of the War of 1812, the US-Mexican War, and the Indian Wars.⁹³

As previously stated, pensions were only granted after examination by a military physician. This constituted a large expense. Surgeons conducting the examinations were collectively allotted \$800,000 for fees and expenses. Surgeons earned \$2 each for the first five applicants and \$1 for each additional applicant on any given day, not to exceed 20 applicants per day. After conducting the examination, the surgeon reported on the amount of pension an invalid should receive. While this did not constitute a considerable amount

the newly-created Department of the Interior (DOI). The bureau would remain with the DOI until the merger of the federal government’s three separate veteran’s bureaus into what would eventually become the Department of Veteran Affairs.

⁹³ Edward F. Waite, “Pensions: The Law and Its Administration,” *Harper’s New Monthly Magazine*, January 1893, 235-244, accessed 1 April, 2015, <http://ebooks.library.cornell.edu/cgi/t/text/pageviewer-idx?c=harp;cc=harp;rgn=full%20text;idno=harp0086-2;didno=harp0086-2;view=image;seq=00245;node=harp0086-2%3A1>; United States, *Laws of the United States Governing the Granting of Army and Navy Pensions, Together with the Regulations Relating Thereto* (Washington, DC: United States Government Publishing Office, 1897), Google Books.

of extra work for the surgeons, the demand immediately following the close of the US-Mexican War combined with the drastically increased area of operations and the continued necessity to conduct entrance examination boards for new recruits and new surgeons to produce an additional, if temporary, stress on the AMEDD system.

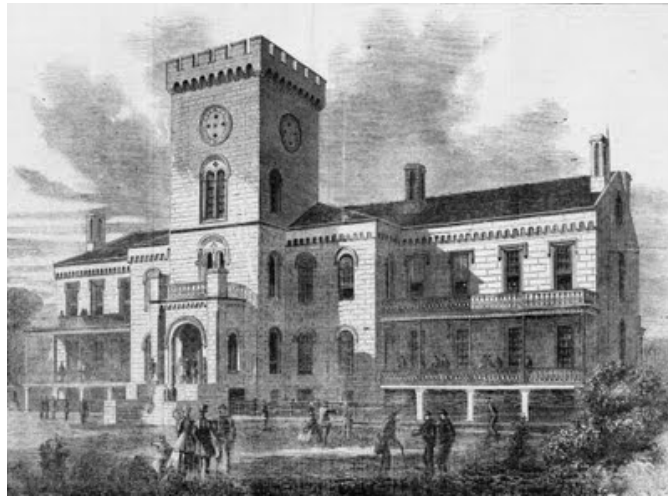


Figure 14. Scott Hall at the Old Soldier's Home, Washington, DC, ca 1857

Source: Alexander Gardner, “Military Asylum, Washington, DC,” Library of Congress, accessed 1 October 2014, <http://www.loc.gov/pictures/item/91730690/>.

Pensions provided some means of support for veterans to care for themselves and their families. However, a portion of the soldiers returning from Mexico had no extended family and lacked a place to go for long-term care that fell within the limited means a pension provided.

The establishment of long-term care facilities is arguably the greatest advance to come from the war experience. At war’s end, Lawson and Scott recommended the establishment of long-term care facilities for returning veterans. The first veteran’s home

in the United States was opened in 1834 at the Philadelphia Naval Yard. This facility specifically provided for the care of naval officers, seamen, and marines. Until after the US-Mexican War, there were no long-term facilities for army veterans. Many recognized this deficiency before the war. General Scott, for example, championed an asylum for unsupported veterans for more than 25 years. To see his vision come to fruition, he took the bold step of depositing \$100,000 of funds received from the assessments in Mexico during the occupation and sale of confiscated items into a bank account at Bank of America.⁹⁴ Scott directed that the money was only to be released for the establishment of an asylum for veterans. Congress attempted to force the return of the funds to the War Department, but Mississippi Senator Jefferson Davis intervened and introduced a bill to establish a home for unsupported, disabled veterans. The bill was finally approved by Congress in 1851. Scott's goal was realized with the founding of Soldiers' Homes in Washington, DC and Harrodsburg, Kentucky as "asylum[s] for old and disabled veterans."⁹⁵ These facilities operated at less than maximum capacity until after the Civil War when the number of residents increased drastically.

Administration for the Old Soldiers' Homes fell to the AMEDD. Lawson served on the Board of Commissioners, and a surgeon of the regular army acted as the attending physician at each location. This was in addition to his regular duties with the army. For a

⁹⁴ Memorandum, Winfield W. Scott to Edmund Kirby, 21 January 1848, in *Index to the Executive Documents, Thirtieth Congress, First Session*, 1087; Memorandum, Edmund Kirby to N. Towson, 21 January 1848, in *Index to the Executive Document, Thirtieth Congress, First Session*, 1086-1087.

⁹⁵ Armed Forces Retirement Home, "History," accessed 20 March 2015, <https://www.afrh.gov/afrh/gulf/ghistory.htm>. It was not until 1991 that this facility was opened to all branches of service.

while, the attending physician at the Washington, DC facility also served on the Board of Commissioners as secretary/treasurer. Surgeons acting in this capacity were compensated as the Board of Commissioners saw fit.⁹⁶

On the advice of both Lawson and Scott, adequate steps were taken to care for those veterans who had nowhere else to go and were unable to care for themselves. Pensions and the Old Soldiers' Homes were ways of mitigating the hardships of returning soldiers. As a whole, however, the AMEDD did not go far enough to prepare for returning soldiers. This is not surprising considering that sick soldiers began returning to New Orleans while soldiers were still being transported through New Orleans into theater. If the AMEDD was unable to handle the number of sick soldiers before leaving for Mexico, it was wholly unprepared to handle the ones returning home.

Post-War Reorganization

The AMEDD, as a pre-professional organization, demonstrated several times during and after the conflict that it was not a true learning organization. Some change finally came to the AMEDD as Congress made certain concessions because of Lawson's lobbying. The result was an expansion of the AMEDD. That the organization failed to learn was not the fault of its rank and file for throughout the conflict several generals reported the commendable actions of individual medical officers. Generals Taylor, Scott, Worth, and Sterling Price all wrote of the praiseworthy actions of surgeons. For example, Price wrote that the actions of one surgeon "won for him admiration and esteem from both armies." Whether it was the lobbying of Lawson or favorable accounts of surgeons'

⁹⁶ Gillette *The Army Medical Department, 1818-1865*, 128.

actions, there were some favorable changes made by Congress while others did little to help. Other changes included the ability to recruit men specifically to serve as stewards and clarity about the rank of AMEDD officers and the rank's meaning within the larger army. Unfortunately, the department would not capitalize on some of these changes.

The 1847 law that expanded the department by 14 surgeons had an additional clause dismissing the additional personnel after the cessation of hostilities. In March 1848, however, Congress made the expansion permanent. On the surface, this looked like Congress was finally taking Lawson's requests seriously. However, the increase in the area of operations, the distances between the 89 posts, and the near isolation of many installations made this a token increase. As late as 1855, Lawson was still attempting to expand the department and corresponded frequently with the Secretary of War on the matter. Lawson told him that the number of medical personnel depended more upon how and where the surgeons were used and not the numerical size of the army. 1856 saw another small victory when Congress expanded the department by an additional 4 surgeons and 8 assistant surgeons. The small size of the department relative to the area of operations continued the reliance on expensive and dubious contract surgeons. Unfortunately, shortly before the outbreak of the Civil War, the AMEDD only had 30 surgeons and 83 assistant surgeons; some of these would join with Confederates.⁹⁷

While Congress did not go far enough to expand the department, one of the most important Congressional concessions that AMEDD failed to capitalize on was the permanent attachment of hospital stewards to the AMEDD. In 1856, Congress granted the Secretary of War the ability to appoint men as stewards permanently attached to the

⁹⁷ Brown, 207.

AMEDD. This this presented the organization with the opportunity to build a corps of competent, well-trained stewards and establish itself as a professional organization within the army. For the first time, the AMEDD could potentially bring depth and structure its organization, alleviating some of the workload on surgeons. Unfortunately, no progress was made and by 1861 there was no trained steward corps. This again illustrates how the leadership was content with the status quo.⁹⁸

Also illustrating contentment with the status quo was Lawson's continued insistence of obtaining items from New York or other depots on the east coast. Even after the close of the war, he required requisitions be sent into New York from all points, including California! Consequently, some items would take almost a year to reach the requesting surgeon. In some instances, long distances and poor packaging meant that the contents of bottles evaporated before reaching the final destination. Still, Lawson insisted items be procured through east coast depots because they were cheaper to purchase. Patients paid the price for his persistent lack of foresight.

Conclusion

The AMEDD attempted to take a system that was marginally functional in garrison and use it, unchanged, for expeditionary operations. Personnel and transportation problems plagued the AMEDD throughout the conflict. Inadequate in size and stymied by Congress, Lawson took no steps to recruit competent contract physicians. Instead, he left regular army surgeons in garrison in the north and relied on unknown civilian doctors in New Orleans, Texas, and Mexico. Despite the severe shortage of providers and

⁹⁸ Gillette *The Army Medical Department 1818-1865*, 129-131.

difficulty obtaining competent support care at the various regimental and general hospitals in theater, the AMEDD, when finally granted hospital stewards, took no steps to recruit or train soldiers for the task. The organization was only as strong as the Surgeon General. As vocal as he could be, he failed to capitalize on concessions made by Congress or the desire of generals in the field for more surgeons.

The requirement for consistent and reliable patient transport was finally addressed in 1859, eleven years after the war ended and after observers returned from Crimea. The AMEDD saw the development and testing of two styles of ambulance wagons. By 1861, the four-wheeled ambulance wagon was in use in some garrisons west of the Mississippi River. However, despite the experiences of the US-Mexican War, ambulance wagons were not widely available, so that at the outbreak of the Civil War there was once again a severe shortage. To design an effective ambulance is not the same as procuring one. This again illustrates faulty leadership and not utilizing peacetime to make preparations for hostilities.

Among the many duties assigned to surgeons, Lawson required detailed reports of climate, precipitation, winds, plants, and insects at the various garrisons. Additionally, surgeons conducting the entrance exams for new recruits and compiled reports which detailed their height, weight, age, physical characteristics, and place of origin. The AMEDD did a tremendous job compiling information; the bulk of these statistics were published in the *Statistical Report on the Sickness and Mortality in the Army of the United States*. However, besides compiling data, the state of the AMEDD as a pre-professional organization meant that the data was not analyzed in a systematic manner to

identify trends and anticipate problems that may arise in the different operating environments.

At the same time Taylor was consolidating his forces at Corpus Christi, Lawson noted in a letter to Brigadier General William Worth that a war with Mexico was eminent. Nevertheless, Lawson continued to operate as if the AMEDD would continue functioning in a garrison environment. This is the greatest lesson presented by the US-Mexican War experience. Lawson failed to use peacetime to anticipate the complexities of a conflict he acknowledged was on the horizon. Furthermore, his actions between the US-Mexican War and the American Civil War illustrate that he did not heed the lessons of 1846-1848. He did not take advantage of the opportunity to raise a corps of hospital stewards to alleviate the workload of the surgeons. He did not pursue acquiring hospital ships further nor did he order ambulances for use in the field. Unfortunately, at the time of his death, Lawson left the AMEDD essentially as he found it and the fragile structure and procedures of the AMEDD would collapse during next major conflict, one that dwarfed the US-Mexican War in scale and duration.

APPENDIX A

ORGANIZATION OF MEDICAL SUPPORT OF THE REGULAR ARMY, 1784-1813

Date	Regular Army	Medical Personnel
June 1784	Continental Army-80 men; 700 men from state militias form regiment for 1-year service	0 medical personnel
April 1785	700 men from state militias for 3-year service	1 surgeon; 4 surgeon's mates (mates)
August 1789	1 infantry regiment (560 men); 1 artillery battalion (280 men)	1 surgeon and 4 mates (for infantry); 1 mate (for artillery)
April 1790	Infantry regiment expanded (1,216 men)	1 surgeon and 2 mates (infantry); artillery unchanged
March 1791	Second infantry regiment (912 additional men)	1 surgeon and 2 mates (per infantry reg); artillery unchanged
March 1792	3 more infantry regiments; 1 squadron light dragoons	1 surgeon and 2 mates (per infantry reg); artillery unchanged; 1 mate (dragoons)
December 1792	Army reorganized. 4 sublegions (1,280 men each)	1 Surgeon General; 1 surgeon and 3 mates (per sublegion); 6 mates (garrison)
May 1794	4 battalions of Corps of Artillerists and Engineers (CAE)	1 surgeon; 4 mates (CAE)
May 1796	Army reorganized. 4 regiments infantry, 2 companies light dragoons, CAE	1 surgeon and 2 mates (per infantry reg); 0 (dragoons); 1 surgeon and 4 mates (CAE)
April 1798	Second regiment of CAE	1 surgeon, 3 mates
May 1798	Up to 10,000 additional soldiers authorized	Authorization to appoint Physician-General if necessary
July 1798	12 infantry regiments authorized; 1 dragoon regiment created	1 surgeon and 2 mates (per infantry reg); Craik appointed Physician-General
March 1799	Authorized: 24 additional infantry regiments, 3 cavalry regiments, 1 battalion of CAE, regiment and battalion of riflemen	1 surgeon and 2 mates per any regiment
March 1802	Army reduced to only 2 infantry regiments and 1 artillery regiment	2 surgeons and 25 mates, all in garrison
December 1807	No change	2 surgeons in army, 1 actively serving; 31 mates, 27 actively serving
April 1808	Army authorized to expand from 3,300 to 9,900	Addition 5 surgeons and 15 mates for hospitals. 1 steward and 1 wardmaster per hospital authorized

Date	Regular Army	Medical Personnel
January 1812	10 additional infantry regiments, 2 artillery regiments, 1 dragoon regiment authorized	1 surgeon and 2 mates per any regiment; hospital surgeons and mates as needed; 1 steward per hospital
June 1812	Army reorganized: Infantry regiments set at 900 men, 25 regiments authorized. 4 artillery regiments, 2 dragoon regiments, Corps of Engineers, 1 riflemen regiment	1 surgeon and 2 mates (per reg); 1 mate (per dragoon reg)
January 1813	Additional 20 regiments authorized	1 surgeon to 2 mates (per new reg)

Source: Adapted from Mary C. Gillett, *The Army Medical Department, 1775-1818* (Washington, DC: Center of Military History, United States Army, 1983), 130-131.

APPENDIX B

SURGEONS AND ASSISTANT SURGEONS OF THE ARMY IN MEXICO

A list of the officers of the AMEDD who went to Mexico, their position and rank, and additional notes.

Surgeon General (Colonel)

Thomas Lawson—Chief Surgeon of Scott's Army; Brevet Brigadier General by May 1848

Henry Lee Heiskell—Major, served as acting Surgeon General in Washington, DC in Lawson's absence.

Surgeon (Major)

Benjamin F. Harney—1st Infantry; staff of Surgeon Tripler

Clement A. Finley—2nd Medical Director of Taylor's Army

Presley H. Craig—1st Medical Director of Taylor's Army

Richard S. Satterlee—Medical Director of Worth's division

Samuel G. I. De Camp

Hamilton S. Hawkins—died at Tampico, 1847

Robert C. Wood

Henry A. Stinnecke

William L. Wharton—died in Texas, 1846

Charles S. Tripler—2nd Infantry and Medical Director, Twiggs Division

Burton Randall—5th Infantry; began conflict as Assistant Surgeon

Nathan S. Jarvis

Adam N. McLaren

Joseph J. B. Wright—Medical purveyor for General Scott's Army

John B. Porter—Promoted to Surgeon October, 1846

John B. Wells—Promoted to Surgeon October, 1846

John M. Cuyler—Promoted to Surgeon February, 1847; Director of hospital in Puebla;
4th Artillery

Edward H. Barton—3rd Dragoons

Assistant Surgeon (Captain)

Leonard C. McPhail

Samuel P. Moore

Alexander F. Suter—Mounted Rifles; died in Mexico City, 1847

Charles M. Hitchcock—Director of Hospitals at Buena Vista

Bernard M. Byrne

Eugene H. Abadie

Charles H. Laub—7th Infantry

Assistant Surgeon (Captain) *continued*

Josiah Simpson—6th Infantry
James R. Conrad
David D. C. De Leon—8th Infantry
James W. Russell
Henry H. Steiner—1st Artillery
John C. Glen
Henry E. Cruttenden—resigned in 1846
James Simons—4th Infantry; wounded at El Molino del Rey
Thomas C. Madison—2nd Dragoons
Alfred W. Kennedy
Joseph K. Barnes—2nd Dragoons
Levi H. Holden—3rd Artillery
John S. Griffen
Richard F. Simpson
William Levely—1st Dragoons

Assistant Surgeons (First Lieutenant)

Alex S. Wotherspoon
Charles C. Keeney—3rd Infantry
William Roberts—died in Mexico City of wounds received at El Molino del Rey
Grayson M. Prevost
Robert Murray
John T. Head—Taylor's Battery
Lewis A. Edwards
Robert Newton
Horace R. Wirtz
Robert C. Wickham—died at Veracruz
Israel Moses
John F. Hammond
Josephus M. Steiner
Charles P. Deyerle—2nd Artillery
Elisha J. Bailey
Nicholas L. Campbell
Samuel L. Barbour
George E. Cooper
Ebenezer Swift—1st Dragoons
Francis L. Wheaton—9th Infantry

Volunteer Surgeons (incomplete list)

Thomas Love—Mississippi Volunteers
John C. Reynolds—1st Pennsylvania Regiment

Volunteer Surgeons (incomplete list) continued

R. McMillan—2nd Pennsylvania Regiment
C. J. Clark—1st South Carolina Regiment
Mina B. Halstead—2nd New York Regiment
A. Parker—Texas Horse
William B. Herrick—1st Illinois Volunteer Infantry
Otis Hoyt—Massachusetts Regiment
Seymour C. Halsey
C. Peyton—Assistan Surgeon, 1st Illinois
Wilkerson—Assitant Surgeon, 1st Illinois
Edward B. Price—Surgeon, 2nd Illinois
D. S. Lane—Surgeon, 2nd Indiana
Walker—Assistant Surgeon, 2nd Indiana
John S. Athow—Surgeon, 3rd Indiana
Dunn, Assistant Surgeon, 2nd Indiana
Joseph G. Roberts—Surgeon, 2nd Kentucky
Castile—Assistant Surgeon, 2nd Kentucky
Lafon—Assistant Surgeon, 2nd Kentucky
Thompson—Mississippi Rifle Regiment
Trevitt—2nd Ohio
E. H. .Roane—Arkansas Cavarly Regiment
Alexander C. Hensley—Surgeon, Kentucky Cavalry Regiment
Blanton—Assistant Surgeon, Kentucky Cavalry Regiment
White—Arkansas Volunteers

Source: Adapted from WM Hugh Robarts, *Mexican War Veterans. A Complete Roster of the Regular and Volunteer Troops in the War Between the United States and Mexico, from 1846 to 1848* (Washington, DC: Brentano's, 1887), Kindle Edition, 6-7; Mary C. Gillett, *The Army Medical Department, 1818-1865* (Washington, DC: Center of Military History, 1987), 129; Louis C. Duncan, "Medical History of General Scott's Campaign to the City of Mexico in 1847," *The Military Surgeon*, (1921): 48 Google Books, 607-608; Louis C. Duncan, "A Medical History of General Zachary Taylor's Army of Occupation in Texas and Mexico, 1845-1847," *The Military Surgeon*, 48 (1921), Google Books, 101-102.

APPENDIX C

SELECTED CORRESPONDENCE BETWEEN GENERAL TAYLOR AND SURGEON GENERAL LAWSON

In the late spring of 1846, Surgeon Craig requested furlough. In a letter to the Adjunct General of the Army Taylor stated:

Owing to the scarcity of medical officers, I find it impossible to dispense with the services of Surgeon Craig at this time, and therefore forward his application, with the urgent recommendation that additional medical officers be sent to this army to admit of the relief of Surgeon Craig and others, who are more or less broken down by long and arduous service in the field.

Surgeon General Lawson's response to General Taylor and Surgeon Craig's request:

Surgeon General's Office
July 29, 1846

Upon the subject of the scarcity of medical officers in the field, I have no hesitation in expressing the belief that the regular troops employed against Mexico have comparatively as large a number of medical officers as any other army in the world.

The laws of the land in former times, as on a late occasion, awarded two medical officers to a full regiment of about 750 men or one medical officer to 375 men; and this proportion of medical officers to a consolidated regiment or body of 750 men has been found, from long experience, sufficient to meet the requirements of the service.

From the monthly returns in the adjutant general's office for May last, (the latest report received,) it appears that on the 30th of that month the strength of the army of occupation in officers and men was 3,938; and from the returns in the surgeon general's office it is found that there were at that time 21 medical officers serving with that army.

Now, if we divide 3,938 men, the strength of the command, by 24, the number of medical officers present with it, the result will give one medical officer to every 164 men, instead of 375, or 100 per cent more of medical officers than is contemplated by the laws providing for the organization of military corps.

If we give twelve medical officers to the 3,938 men in the field, which is the full complement recognized by law, we shall have, after furnishing one for medical director, two for a general hospital, and one to perform the duty of medical purveyor, still eight officers, or one-third of the whole number, in reserve to meet the contingencies of the service, the incidents and accidents growing out of active operations in the field.

Since the last return from the army, one medical officer has gone into the field with a body of recruits; two are now en route with detachments of the 2d infantry towards the theatre of action, and one is about to sail in a day or two with another portion of the 2d infantry for the seat of war.

In this way—that is, by sending a medical officer with each detachment of troops which goes into the field—the standard number of medical officers (originally large) will be kept up with the army of occupation.

To do more than this would be making a sacrifice of military propriety and the public interest, to save a little labor to some of the medical officers, who, if the duties are equitably distributed among them, I am free to say, from analogy and from experience, have not more to do than the government has a right to claim of them.

I know what a man can perform and ought to do in time of need. I have myself acted as medical director, medical purveyor, at attending surgeon to a body of troops, at one and the same time; nay more, I have frequently prescribed for 250 men a day; and I have a right to expect that those under my control will perform something like the same amount of duty.

As to the “exposure and privations incident to a camp life making serious inroads upon a man’s health,” or his being “broken down by long and arduous service in the field.” Of less than one year’s duration, I can scarcely entertain the idea.

Why, I never would permit myself to be sick when honor and duty claimed from me active exertion; but whether sick or well, I was never known to quit the field until called off by authority. It is very easy for an officer, who is called upon to do a little more duty than the very little service he has been accustomed to perform at a small military post, to speak in round numbers of the arduous duties, the privations and sufferings, he has experienced in the field, when a statistical examination into the matter will prove that his grievances are all imaginary—mere trifles, as light as air.

It may be proper to remark, in connexion with this subject, that there are other armies or bodies of troops operating in the field, besides the army of occupation, to be provided with medical officers; and as they are further removed, being more in the interior of the country, from the facilities of obtaining reinforcements or relief in the way of medical aid in the event of a fatality, it is perhaps proper that they should be furnished in the outset with a comparatively larger medical corps; also, there are some important and indispensable duties to be performed by medical officers of the army other than those of prescribing for the sick and administering to the wounded; and for cases of this kind, provision must be made.

Again, we must have some officers in reserve to meet contingencies nearer at home; such as may arise from the hasty assemblage of recruits for transportation to the theatre of war, the getting up of new expeditions, &c., &c.; each case requiring the

employment of medical officers of the army, and therefore constituting a good reason for not sending all the medical officers at once into the field.

I have been thus particular in my statements, to show that, in the fulfilment of my obligations *generally* to the government, involving a due regard to the public interests as well as to the rights and claims of individuals, I have not been unmindful of the legitimate claims and wants of the army of occupation.

I have given all in the way of medical aid which military propriety, the customs of the service in like cases, and the actual wants of the army, seemed to require; but if they desire more medical officers they shall have them, with myself to boot, if acceptable, and I am borne out in the measure by the government.

Far be it from me to wish to withhold aught that will contribute to the comfort, the convenience, or the gratification of either one of those gallant souls who so valiantly fought and so signally triumphed on the battle fields of Palo Alto and Resaca de la Palma.

I have the honor to be, very respectfully, your obedient servant,

TH. LAWSON
Surgeon General

Brig. General R. Jones
Adjutant General, U.S.A.

General Zachary Taylor's response to the request of Assistant Surgeon Wells to leave Mexico in 1846:

No. 84

Head-quarters, Army of Occupation,
Camargo, September 2, 1846.

SIR: I feel it my duty to call your attention to the great scarcity of medical officers with this army. While nearly two thirds of the regular army is now serving on this frontier, we have not more than two-sevenths of the medical staff—a manifest disproportion, to the great injury of the service.

Our general hospitals at St. Joseph's island, Point Isabel, and Matamoras, are scantily supplied with officers, and yet we take the field with no more than one medical officer to a battalion, and in eight battalions of regular troops but one full surgeon. This allowance is quite too small for the field, and the public interest demands that it be at once increased; but it is now too late to do so for this campaign.

The great deficiency of medical officers brings with it the obvious necessity of

hiring less competent physicians, and often at higher rates. There are many surgeons and assistant surgeons at garrisons on the seaboard, and elsewhere, whose places might be filled at moderate cost, while their valuable services might be secured where most needed in the field during active operations.

Under the circumstance above stated, I regret that I cannot possibly spare the services of Assistant Surgeon Wells at this juncture. Until a considerable increase shall be made in the strength of the medical staff serving with this army, I should deem myself culpable to permit any medical officer to leave who is able to perform duty.

I am, sir, very respectfully, your obedient servant,

Z. TAYLOR

Major General U. S. A., commanding

The Adjutant General of the Army,
Washington, DC

*Source: Zachary Taylor in Mexican Affairs and War, 1825-1848, Google Books, 414;
Thomas Lawson in Mexican Affairs and War, 1825-1848, Google Books, 415-416.*

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