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Debra L. Martin
Caryn Tegtmeyer *Editors* 

# Bioarchaeology of Women and Children in Times of War

Case Studies from the Americas



# Chapter 8 Army Health Care for Sable Soldiers During the American Civil War

Carlina de la Cova

### Introduction

This volume has focused on the impact of war on the health of mostly women and children through cross-disciplinary approaches that have integrated bioarchaeological research with documentary, ethnohistorical, and sociocultural analyses. As the scope of this book and previous chapters have emphasized, war comes not only with physical wounds and deaths associated with battle, but disruption of people's lives, including access to the basic resources needed for survival. Combined with this is the psychological impact war has, which affects how one interacts with their environment, and thus their biological health (see Clarkin in this volume).

This chapter differs from all the others. It focuses on the American Civil War and examines the impact federal military policies had on the health of African American soldiers. Few large-scale bioarchaeological studies have examined Civil War soldiers, let alone those of African descent, as collections containing the *complete* skeletal remains of these veterans are minimal or reburied with military honors (Rathbun and Smith 1997; Sledzik and Sandberg 2002; Wols and Baker 2004). This period of the nation's history is extremely important in comprehending the biological transition from enslavement to emancipation amongst African Americans regarding salubrity, systemic stress, and health disparities. Furthermore, knowledge about health outcomes during this era can shed new light on health disparities that persist today, despite modernization and improved health care.

Therefore, instead of examining the health of African American Civil War soldiers through the lens of bioarchaeology due to the unavailability of skeletal remains,

C. de la Cova, Ph.D. (M)

Department of Anthropology, University of South Carolina, Columbia, SC, USA

African American Studies Program, University of South Carolina, Columbia, SC, USA e-mail: delacova@mailbox.sc.edu

I have analyzed historical documentation to reveal how medical treatment of Black soldiers, especially those that were enslaved in the South, differed from white and free-born African American troops from the North. This study of the 33rd United States Colored Troops (USCT), the volunteer 54th Massachusetts, 6th Connecticut, and 9th Maine infantry regiments relies on historical documents drawn from numerous sources, including medical records, newspapers, and first-person manuscripts. Despite an absence of skeletal data, analyses of these historical documents can shed light on the health and treatment of these soldiers. This documentary data also demonstrates how the Black Civil War experience was plagued with discriminatory federal government policies. When combined with social beliefs about Black inferiority and biological differences, this triggered biological stress amongst African American soldiers that had resonating health effects for generations to come.

# The American Civil War: Background and Attitudes Toward African Americans

The Civil War brought battle directly into people's residences and lives. As the divided nation engaged in a 4-year conflict that centered on preserving the Union or defending states' rights, daily activities became disrupted, especially in the South, as military units swept through civilian farms and cities, leaving disorder and death in their wake from skirmishes, battles, foraging, and thievery. Any resources that were valuable, edible, or assisted the Union cause, were appropriated according to the federal Confiscation Acts of 1861 and 1862, which allowed the Union Army to seize land, weapons, property, and the slaves of Confederate sympathizers. Historians aptly point out that the South was in rebellion. Therefore, seceded states no longer had constitutional protection, which allowed for the taking of personal property (Wise et al. 2015).

As the federal military moved into the South, many slaveholders fled their lands after unsuccessfully coaxing their slaves to follow (Wise et al. 2015). Under the Confiscation Acts, these slaves without masters, referred to as contrabands by the US government, were utilized by the Union Army for manual labor to build fortifications, grow crops, and perform duties as servants, cooks, washers, grave diggers, and groomsmen (Nolen 2001; McPherson 2003; Wise et al. 2015). The government classification of contraband for these bondspeople implies that they were not considered free and were regarded as property by some federals until 1863. Historian Stephen R. Wise and colleagues (2015) argue this point, referring to these runaway slaves as refugees or defacto-free, as the 1st Confiscation Act indicated that slaveholders forseited all rights to their property, including their chattel. Regardless, of their status, the federal government paid these former slaves wages (Wise et al. 2015). This was especially true for refugees on the South Carolina Sea Islands; skilled workers were paid "eight to twelve dollars a month" and manual laborers "four to twelve dollars" (Wise et al. 2015:68). Men who worked for the Union Army's Quartermaster Department received five to eight dollars per month (Wise et al. 2015). They were also fed, uniformed, armed, and officered.

Shortly after the Emancipation Proclamation (EP) went into effect on January 1, 1863, President Abraham Lincoln ordered the enlistment and conscription of African American males into combat regiments. Many volunteered, but for former slaves, emancipation was concurrent with forced impression (Rose 1976). An estimated 180,000 sable soldiers, a term used to describe Black troops, served in the US Army from 1863 to 1865 (McPherson 2003). Despite their eager enlistment by the Union, they did not receive the same treatment, combat action, and medical care as white soldiers (Higginson 1984; Wilson 2002).

Attitudes toward sable soldiers were further complicated by their origins. Emancipated slaves turned soldiers were more vulnerable to discrimination, especially in regard to health care and family support (Reid 2002). At the war's onset, many began their military journey as slaves that fled their masters and sought refuge with the Union Army. Hundreds of runaways entered federal encampments daily, forcing the ill-prepared military to establish contraband camps for these refugees. The army assigned able-bodied men to fatigue detail or service as cooks, servants, groomsmen. launderers, and gravediggers (Nolen 2001). After Lincoln approved their enlistment, all capable Black males either volunteered or were drafted into the service.

Once inducted, regardless of race, Union soldiers lived in grueling camp conditions that were not conducive to positive health outcomes. Disease was responsible for two-thirds of the war-related deaths (Bollet 2002). Military camp life, with its poor diet, exposure to the elements, and bad sanitation, encouraged illnesses (Bollet 2002). Rural recruits never exposed to communicable childhood ailments like measles, mumps, chicken pox, or whooping cough succumbed to epidemics in the crowded military camps of up to more than 100,000 men. Poor camp sanitation caused dysentery, typhoid fever, jaundice, and typhus. Warm weather and insect vectors exposed soldiers to fevers and malaria. Colds, pneumonia, bronchitis, and tuberculosis were also common.

There is a broad scholarship, mostly from the disciplines of history and medicine, that has examined health amongst Civil War troops, including African American recruits (Bollet 2002; Freemon 1998; Steiner 1968; Humphries 2008, 2013; Meier 2015). This literature has addressed how poor camp conditions and germ theory ignorance was detrimental to Civil War health from a biological, environmental, and surgical perspective. In recent years, historians have addressed the impact the war had on Black troops, especially within the context of federal military policies (McPherson 2003; Humphries 2008). However, little research has examined health differences amongst regiments comprised of northern free-born African Americans and recently emancipated southern slaves. These men would have had differential access to resources and support networks. Northern-born African Americans had stronger community support, with state, political, and financial backing from abolitionists to assist them and their families in buffering the stress and structural violence inherent in federal military policies (Reid 2002). Furthermore, their families were not in contraband camps, or enslaved. Former slaves lacked the strong infrastructural or community support that northern free-born African Americans of social position had. Most former bondsmen had little state, political, or family backing as their needy relations remained in contraband camps.

This study will address these issues by focusing on the impact war and federal policies had on the health of African American Civil War soldiers that served in the Department of the South from 1862 to 1865. Health care and illness amongst two African American regiments, the 54th Massachusetts, comprised primarily freeborn males from the North, and the 33rd USCT, composed of emancipated southern slaves, and two European-descended regiments, the 6th Connecticut and the 9th Maine, were analyzed to determine if salubrity and access to health care contrasted amongst the units. I hypothesize that differences in health will exist between these white and African American regiments, with the latter having a higher prevalence of sickness. Furthermore, there will be more reported illnesses among the 33rd USCT when compared to the 54th Massachusetts. I argue that these differences exist due to the inherent structural violence present in the federal army that centered on notions of mental and biological inferiority, which affected federal policy and the attitudes of military officials toward Black bodies.

### **Materials and Methods**

This study is based on the examination of Civil War medical records curated at the National Archives and Records Administration (NARA) in Washington, DC. The Carded Civil War Medical Records (Record Group 94, Records of the Adjutant General's Office, 1780s–1917, entry 534, NARA) of four Union Army regiments that served in the same locale, and thus environment, and fought in similar battles were analyzed. This is one of the first studies to examine the health of these regiments through the statistical analysis of their carded medical records. The federal government kept documents related to every aspect of warfare, including medical records and prescription books for all units that fought in the conflict. According to NARA (Plante 2002: http://www.archives.gov/publications/prologue/2002/fall/military-records-overview.html) these carded records:

...relate to volunteers admitted to hospitals for treatment and may include information such as name; rank; organization; complaint; date of admission; hospital to which admitted; and date returned to duty, deserted, discharged, sent to general hospital, furloughed, or died. This series is arranged by state, then by the number of the regiment (cavalry, infantry, and artillery are filed together under the common regiment number) and then by initial letter of surname.

# The Regiments

The 54th Massachusetts Volunteer Infantry (Colored) was primarily comprised free-born African Americans predominantly from the northern states (Massachusetts, New York, Indiana, Ohio), some of whom comprised the educated Black middle and upper classes, including Frederick Douglass' sons Lewis and Charles. The unit was commissioned in February 1863 by the abolitionist and Massachusetts Governor John A. Andrew (Emilio 1984). Its commander, Colonel Robert Gould Shaw, was the son of wealthy Bostonian abolitionist Francis George Shaw.

The 54th was stationed in Beaufort, South Carolina, at the start of its military campaign in May 1863. The regiment participated in the raid on Darien, Georgia, and the battle of Grimball's Landing on James Island, S.C., on July 16, 1863. Two days later, the 54th reached its pinnacle of glory when it spearheaded the second assault on Battery Wagner at Morris Island, S.C. The Union Army shelled the battery from land and sea for one week prior to the attack. As a result, according to Sergeant Charles Caldwell (1875:71) of the 6th Connecticut, many thought an "easy victory was within reach." Col. Shaw requested and received permission for his regiment to lead the charge as he "wanted the black troops to distinguish themselves" to prove they could fight bravely with white soldiers (Caldwell 1875:71). It was assumed that the 54th would meet minimal resistance after the massive bombardment. This would prompt an easy triumph for African American troops and a political victory that would encourage Black recruitment. It would also simultaneously notify the Confederacy that their enemy was utilizing Blacks in warfare. The federals had not anticipated that the defenders of Battery Wagner protected themselves and their artillery in bombproof bunkers during the shelling (Wise 1994). Furthermore, the Confederate chief of artillery for the Department of South Carolina, Georgia and Florida, Cuban-born Colonel Ambrosio José Gonzales, ordered shotguns for close combat and a mine field deployed at Battery Wagner (de la Cova 2003). The 54th ran into the unexpected mines and overwhelming artillery and rifle fire that prevented their victory. Col. Shaw died and over 31 % of the regiment were killed, injured, or missing. Despite its losses, the unit went on to fight the following year in the battles at Olustee, Fla., and Honey Hill, S.C., with further significant casualties (Dyer 1908). Their last skirmish took place at Boykin's Mill, S.C., in 1865 (Dyer 1908).

The 33rd USCT, comprised former slaves, was one of the earliest Black regiments raised by the Union Army, and the first composed of liberated bondsmen. In 1862, the commanding officer of the Department of the South, abolitionist Major General David Hunter, declared martial law in the region and freed all slaves. He began recruiting contrabands in 1862 and quickly organized them into the 1st Regiment South Carolina Volunteer Infantry (African Descent). Lincoln rescinded Hunter's proclamation, but did not order the unit disbanded (Hunter's and Lincoln's actions are examined in the discussion section). Hunter never received official federal support for his regiment and declared it disbanded in a personal letter to Secretary of War Edwin Stanton in August of 1862 (Wise et al. 2015:119). However, the major general did not completely dissolve the unit. He gave the men leave to visit their families, whilst others served as laborers on Hilton Head Island, S.C. (Wise et al. 2015). Additionally, two of its companies were deployed to St. Simon's Island, Georgia, to protect a colony of slaves from Confederate sympathizers (Wise et al. 2015). The 1st South Carolina was eventually authorized by the War Department in August 1862, sworn in on November of the same year, and mustered into service when the EP went into effect. Colonel Thomas Wentworth Higginson, "a radical abolitionist and Unitarian minister," was selected to command the regiment, later renamed the 33rd USCT (Wise et al. 2015:154). Medical records reveal that the War Department had to screen and dismiss many unfit men from the unit's ranks. Hunter

had inflated the 33rd to regimental capacity with individuals up to age 80 who were lame, had malformed limbs, and missing teeth, the latter crucial to loading a weapon. The unit saw little combat, with the exception of raids in South Carolina, Georgia, and Florida (Higginson 1984; Wise et al. 2015). It mostly performed picket duty in the South Carolina Lowcountry (Higginson 1984).

The 6th Connecticut Volunteer Infantry Regiment, comprised of native-born whites and Europeans from the northern states, was organized in September 1861 at New Haven (Caldwell 1875). From 1861 to 1863, they were stationed in South Carolina and participated in the battles of Fort Pulaski, Secessionville, and Pocotaligo (Caldwell 1875; Dyer 1908). The 6th Connecticut fought with the 54th Massachusetts in the second assault on Battery Wagner and also lost its commanding officer (Caldwell 1875). They had 35% casualties and recuperated at Hilton Head until sent to Virginia in 1864 (Caldwell 1875). The 6th Connecticut then participated in the conflict at Drewry's Bluff and the siege of Petersburg (Dyer 1908). The regiment spent the rest of the war in North Carolina.

The 9th Maine Volunteer Infantry Regiment, raised in September 1861 in Augusta, Maine, had a similar composition as the 6th Connecticut. Enlistees were native-born whites or Europeans from northern states, especially Maine. Like the 54th Massachusetts and the 6th Connecticut, the 9th Maine was part of the second assault on Battery Wagner. They had earlier participated in the expeditions to Port Royal, S.C., Warsaw Sound, Ga., and Florida (Dyer 1908). The regiment remained on the South Carolina Sea Islands for most of 1863 (Dyer 1908). In mid-1864, the unit was sent to fight at Cold Harbor and Petersburg, Virginia, and afterward served in the final North Carolina campaign (Dyer 1908).

These four regiments were analyzed because they served in the Department of the South, fought in similar battles, and camped near each other during 1863–1864. Furthermore, the two African American regiments studied are renowned and have been the most studied by scholars. They also represent opposite ends of the Black social condition being freedmen and former slaves.

The carded medical records of these four units were scrutinized; each card was recorded in an SPSS database that included name, age, regiment, company, illness, hospital, date of illness, transfer information, type of record (prescription, hospital, or transfer), and notes. There are far more carded records for the African American troops than the white soldiers, which may result in error of the findings, but frequencies can provide specific information about the health of these soldiers.

The sample was statistically examined using  $\chi^2$  analyses according to the race, regiment, and illness categories presented in Table 8.1. Illnesses were diagnosed based on information provided in the carded records and followed definitions described by previous Civil War medicine scholars (Freemon 1998; Bollet 2002). Disorders that could not be attributed to corresponding modern illnesses, such as typhomalaria fever were placed in a separate category, or excluded from analysis. Only annotated cards with clear definitions of diseases were analyzed. Battlefield trauma was excluded from this study due to the heavy losses sustained during the assault on Battery Wagner.

Table 8.1 Race, regiment, and illness cohort/categories

Race	Illness (disease or disorder)
Black Regiments	Diarrheas, Dysenteries, and Cholera
White Regiments	Malaria
ALL THE RESERVE TO THE RESERVE THE TAXABLE	Typhomalaria Fever (malarial and typhoid-like symptoms)
	Typhoid Fever
Regiment	Respiratory Disorders
54th Mass. Infantry	Tuberculosis
33rd USCT	STDs
6th Conn. Crowd/Childhood illnesses (Measles, Mumps, Small Diphtheria)	
9th Maine	Dietary-related disorders (Scurvy, Anemia, Night blindness)

### Results

Results indicated that ancestry-related differences, and in the case of African Americans, place of origin and status (northern versus southern and free-born versus formerly enslaved) were present in the regiments examined. Ancestry analyses (Table 8.2) indicated that white regiments had the highest reports of diarrheas (25.1%), malaria (20.2%), typhoid fever (7.7%), and tuberculosis (3.7%). Black regiments differed, with significantly more cases of respiratory disorders (12.1%), STDs (4.4%), typhomalarial fever (2.2%), and dietary disorders (1.0%).

Further examination by military units (Table 8.3) revealed that all were significantly different, but varied according to regiment, with the 33rd USCT having more reported cases of the illnesses examined when compared to the other regiments studied. The newly liberated slaves that comprised the 33rd reported significantly more bouts with malaria (23.6%), STDs (6.5%), the childhood infectious diseases of measles, mumps, smallpox, and diphtheria (5.2%), and typhomalarial fever (3.2%). Free-born Black soldiers in the 54th only had significantly more reported cases of diarrheas and dysenteries (27.7%). White soldiers in the 9th Maine had greater reported instances of tuberculosis (4.9%), whereas those in the 6th Connecticut suffered from significantly higher rates of typhoid fever (10.1%) and respiratory disorders (6.7%).

# The Effects of War, Federal Policy, and Structural Violence on Sable Soldiers in the Civil War

Results indicated that the troops studied suffered from debilitating illnesses during the Civil War. However, differences in the cases of reported sicknesses are visible when the sample is studied according to race, birth status, and regimental units.

Table 8.2 Chi-Squared results of race illness cohorts

	Absent	Present		0	Absent	Present	Total	Si~
Regiment	(%)	(%)	Total	Sig.	(%)	(%)	Total	Sig.
	Diarrhea	as, dysenter	production in the second of	the state of the state of the state of		STDs		
Black Regiments	4281 (79.3)	1118 (20.7)	5399	0.002	5163 (95.6)	236 (4.4)	5399	0.000
White Regiments	745 (74.9)	250 (25.1)	995		982 (98.7)	13 (1.3)	995	
Total	5026 (78.6)	1368 (21.4)	6394		6145 (78.7)	249 (21.3)	6394	
	THE RESERVE AND ADDRESS OF THE PARTY OF THE	spiratory D	isorders		Malaria			
Black Regiments	4745 (87.9)	654 (12.1)	5399	0.000	4534 (84.0)	865 (16.0)	5399	0.001
White Regiments	941 (94.6)	54 (5.4)	995		794 (79.8)	201 (20.2)	995	
Total	5686 (88.9)	708 (11.1)	6394		5328 (83.3)	1066 (16.7)	6394	
	, ,	les, Mumps Diphthe		ox,	Typhoid Fever			
Black Regiments	5229 (96.9)	170 (3.1)	5399	0.956	5346 (99.0)	53 (1.0)	5399	0.000
White Regiments	964 (96.9)	(3.1)	995		918 (92.3)	77 (7.7)	995	
Total	6193 (96.9)	201 (3.1)	6394		6264 (98.0)	130 (2.0)	6394	
	Т	yphomalari	ial fever	done or manual	Tuberculosis			
Black Regiments	5281 (97.8)	118 (2.2)	5399	0.000	5347 (99.0)	52 (1.0)	5399	0.000
White Regiments	994 (99.9)	1 (0.1)	995		958 (96.3)	37 (3.7)	995	
Total	6275 (98.1)	119 (1.9)	6394		6305 (98.6)	89 (1.4)	6394	
		tary-related	disorde	rs				
Black Regiments	5343 (99.0)	56 (1.0)	5399	0.001				
White Regiments	994 (99.9)	1 (0.1)	995					
Total	6337 (99.1)	57 (0.9)	6394					

Table 8.3 Chi-Squared results of race illness cohorts

Desimont	Absent	Present	Tatal	C:-	Absent	Present	Total	Cia
Regiment	(%)	(%)	Total	Sig.	(%)	(%) s. Dysenteries	Total	Sig.
	Tuberculosis				Cholera			
54th Mass. Infantry	2589 (99.2)	21 (0.8)	2610	0.000	1887 (72.3)	723 (27.7)	2610	0.000
33rd USCT	2758 (98.9)	31 (1.1)	2789		2394 (85.8)	395 (14.2)	2789	
6th Conn.	398 (98)	8 (2.0)	406		307 (75.6)	99 (24.4)	406	
9th Maine	560 (95.1 %)	29 (4.9)	589		438 (74.4)	151 (25.6)	589	
Total	6305 (98.6)	89 (1.4)	6394		5026 (78.6)	1368 (21.4)	6394	
	Malaria				STDs			
54th Mass. Infantry	2404 (92.1)	206 (7.9)	2610	0.000	2555 (97.9)	55 (2.1)	2610	0.000
33rd USCT	2130 (76.4)	659 (23.6)	2789		2608 (93.5)	181 (6.5)	2789	
6th Conn.	335 (82.5)	71 (17.5)	406		399 (98.3)	7 (1.7)	406	
9th Maine	459 (77.9)	130 (22.1)	589		583 (99.0)	6 (1.0)	589	
	5328 (83.3)	1066 (16.7)	6394		6145 (96.1)	249 (3.9)	6394	
	Measles, Mumps, Smallpox, Diphtheria				Respiratory Disorders (excl TB)			
54th Mass. Infantry	2586 (99.1)	24 (0.9)	2610	0.000	2279 (87.3)	331 (12.7)	2610	0.000
33rd USCT	2643 (94.8)	146 (5.2)	2789		2466 (88.4)	323 (11.6)	2789	
6th Conn.	402 (99.0)	4 (1.0)	406		379 (93.3)	27 (6.7)	406	
9th Maine	562 (95.4)	27 (4.6)	589		562 (95.4)	27 (4.6)	589	
	6193 (96.9)	(3.1)	6394		5686 (88.9)	708	6394	
		arial Fever		-	Typhoid Fever			
54th Mass. Infantry	(98.9)	29 (1.1)	2610	0.000	2585 (99.0)	25 (1.0)	2610	0.000
33rd USCT	2700 (96.8)	89 (3.2)	2789	. 1957-10 100-0-100	2761 (99.0)	28 (1.0)	2789	ern sent sent de ficialité
6th Conn.	406 (100)	0 (0.0)	406		365 (89.9)	41 (10.1)	406	
9th Maine	588 (99.8)	1 (0.2)	589		553 (93.9)	36 (6.1)	589	

(continued)

Table 8.3 (continued)

Regiment	Absent (%)	Present (%)	Total	Sig.	Absent (%)	Present (%)	Total	Sig.
	6275 (97.5)	119 (2.5)	6394		6264 (98.0)	130 (2.0)	6394	

These findings support the research hypotheses and agree with health data published after the war by the U.S. Surgeon General's Office (1870) indicating that African Americans had higher mortality rates (white volunteers—94.32 per 1000 versus the sharp contrast of 157.50 per 1000 in USCTs), despite only serving from 1863 to 1865 (United States Army Surgeon General's Office 1870; Aptheker 1947; Black 1994). Statistics indicate these sable soldiers suffered more from smallpox, upper respiratory complaints, scrofula, measles, mumps, intestinal parasites, anemia, and dietary ailments caused by lack of vitamins A and C (United States Army Surgeon General's Office 1870; Aptheker 1947; Black 1994; Bollet 2002). These combined illnesses took their toll on African American troops. The 32 African American regiments that served in the Civil War proportionately lost the most men, with the majority of deaths caused by disease (Bollet 2002). The 5th USCT, for example, had the most casualties of all Union regiments with 829 deaths out of 1053 enlistments. Only 128 perished in battle and the remainder died of disease.

Although the 33rd USCT, 54th Mass., 6th Conn., and 9th Maine camped in the same region and were exposed to the same environmental stressors, their patterns of health differed. When analyzed by race, Black units had significantly more documented cases of respiratory disorders, typhomalarial fever, dietary-related deficiencies, and STDs (Table 8.1). White regiments, however, reported higher rates of diarrhea-based illnesses, malaria, typhoid fever, and tuberculosis (Table 8.1). These patterns became clearer when the medical data was examined by regiment, as illustrated in Table 8.2. The 33rd USCT, comprised former slaves, had higher rates of reported diseases and disorders when compared to the other regiments, including their own free brethren in the 54th Mass. The 33rd had significantly more cases of malaria, STDs, and childhood illnesses, but the least reports of diarrhea-related illnesses. Soldiers of the 54th Mass had higher rates of the latter ailments and respiratory disorders, but the lowest reports of tuberculosis, malaria, and childhood communicable illnesses. Amongst the white regiments, the 9th Maine had more diagnoses of TB, but the lowest data of other respiratory disorders and STDs. The 6th Connecticut had significantly higher reports of typhoid fever, but no cases of typhomalarial fever.

Many factors such as social environment, living conditions, and War Department policies could explain these differences in illnesses, and more importantly, why the 33rd USCT had the highest rates of reported sicknesses. On a basic level, the poor diet and crowded, unsanitary conditions of military life likely encouraged many of the illnesses found in this study. These soldiers lived in grueling military camp conditions when knowledge of germs and microbes were nonexistent. In consequence, health, malnutrition, battle wounds, and infectious diseases were major problems, not just for

the regiments studied, but for all Civil War troops. In fact, it was malnutrition and disease, not conflict-related injuries, which caused two-thirds of war deaths (Bollet 2002). A soldier's diet, despite being army regulated and approved by Congress, often lacked essential nutrients. In 1861, the daily ration per soldier was "Twelve ounces of pork or bacon, or one pound and four ounces of salt or fresh beef; one pound and six ounces of soft bread or flour, or one pound of hard bread, or one pound and four ounces of corn-meal" (United States Army Surgeon General's Office 1990:711-712). In addition, Congress approved rationing of "fifteen pounds of beans or peas, and ten pounds or rice or hominy; ten pounds of green coffee or eight pounds of roasted (or roasted and ground) coffee, or one pound eight ounces of tea" with extra rations of sugar, vinegar, candies, salt, pepper, "thirty pounds of potatoes, when practicable, and one quart of molasses" to be divided amongst groups of 100 men (United States Army Surgeon General's Office 1990:711–712). However, this supply system never materialized. Field troops rarely obtained fresh fruits or vegetables due to inadequate preservation (Bollet 2002). Beef and pork was also a rarity unless it was foraged (federally sanctioned stealing, looting, or appropriation from a civilian or slave abode legalized by the Confiscation Acts of 1861 and 1862). A soldier's staple diet consisted of hard tack, which was a rigid, thick flour cracker often worm-ridden and referred to as "teeth dullers," salt pork, dried beans, corn bread, and desiccated vegetables, which troops called "desecrated vegetables" (Bollet 2002). Edibles needed for a balanced diet competed for the same transport space with war supplies that were deemed more important. Thus, the rations provided to soldiers often prompted nutritional deficiencies.

Malnutrition would have resulted in immunosuppression amongst many soldiers. This, combined with exposure to the elements, and unhygienic, overcrowded camp conditions, made troops more susceptible to bacteria, viruses, and other communicable illnesses such as those observed in this study, including dysentery, typhoid fever, tuberculosis, smallpox, measles, mumps, and diphtheria (Bollet 2002; Meier 2015). High-density encampments were optimal breeding grounds for flies, mosquitoes, fleas, lice, and other insect vectors of disease, encouraging the transmission of malaria, cholera, and typhus. Camp life caused the accumulation of animal offal, garbage, and human waste, all prized by flies, parasites, and other bacteria. Disrupting drainage systems whilst setting up camps created malaria-carrying mosquito breeding grounds (Steiner 1968). Water sources, shared by launderers, cooks, animals, bathers, drinkers, flies, mosquitoes, and soldiers who neglected to use the designated latrines outside of camp at night to relieve themselves, became infected with bacteria. (Bollet 2002). Lack of refrigeration, inadequate handling of food, and bad culinary practices resulted in dysentery, typhoid fever, cholera, and other bacterial-related ailments (Steiner 1968; Freemon 1998).

Seasonal weather changes and poor camp conditions also exposed troops to illnesses (Meier 2015). Warm weather brought an increase in mosquitoes and flies, which made soldiers vulnerable to fevers and malaria (Steiner 1968; Meier 2015). Colds, coughs, pneumonia, bronchitis, and tuberculosis were common during damp and winter seasons (Bollet 2002). Rural recruits never exposed to communicable childhood ailments like measles, mumps, chicken pox, and whooping cough were

present in both armies, which sparked epidemics in crowded regimental camps (Steiner 1968; Bollet 2002).

There is no doubt that this unsanitary environment contributed to the rates of illnesses observed in this analysis. However, it is interesting to note the overall lower prevalence of recorded sicknesses in the 54th Massachusetts when compared to the 33rd USCT. At the beginning of this study, it was believed that if discrimination played a role in federal health care, then both Black regiments would have recorded evidence of unequal access to medical treatment. Given the differences that arose between the 33rd USCT and the 54th Massachusetts, further analyses were performed. Their regimental records were examined for prescriptions, transfers to northern hospitals, furloughs to improve health, or individuals that were mustered out or discharged due to illness, to ascertain if differential treatment existed that could further explain the observed health outcomes (Table 8.4). Prescription data was only present for the 54th and 33rd, with the former having the most records. The absence of prescription cards in the white regiments is probably the result of recording error and lack of record preservation. These troops received medical treatment, but the archivist transcribing the records decades later failed to document the prescriptions. The 54th Massachusetts had an overwhelming higher number of prescription cards when compared to those of the 33rd USCT. Does this mean that 54th had better access to medicines? This data is probably not representative and should be viewed with caution. The 54th participated on the assault at Battery Wagner in 1863 along with the 6th Connecticut. Both regiments experienced heavy casualties so it is possible that some of the reported prescription records of the 54th may be reflecting the long-term effects of battlefield trauma, including fevers, infections, and ulcerations.

The transfer, furlough, and mustered out findings are more reliable, as these events have multiple recorded entries. Patients discharged or transferred from army hospitals in the South to northern medical institutions were transported on military hospital steamers that documented passenger names, ailments, treatment, and destination. The records revealed that white soldiers were evacuated, furloughed, and discharged to the north at significantly higher rates than Black troops, with the 6th

Table 8.4 Chi-squared analysis of health care estimates

Regiment	Prescript	ion mention	1		Transferred to North, Furloughed, or Mustered out due to illness				
	No (%)	Yes (%)	Total	Sig.	No (%)	Yes (%)	Total.	Sig.	
54th Mass. Infantry	1403 (53.8)	1207 (46.2)	2610	0.000	2510 (96.2)	100 (3.8)	2610	0.000	
33rd USCT	2755 (98.8)	34 (1.2)	2789		2727 (97.8)	62 (2.2)	2789		
6th Conn.	406 (100)	0 (0.0)	406		316 (77.8)	90 (22.2)	406	1	
9th Maine	589 (100)	0 (0.0)	589		563 (95.6)	26 (6.4)	589		
	5153 (80.6)	1241 (19.4)	6394		6116 (95.7)	278 (4.3)	6394		

Connecticut having the greatest number of medically evacuated troops (Table 8.4). Amongst the African American regiments, the 54th Massachusetts still had higher frequencies of illness-related northern transfers, furloughs, and discharges when compared to the 33rd USCT. These findings imply that the War Department expressed greater concern over the health of white troops versus those of color. In some respects, the health care the 54th received was better than the 33rd and was more comparable to the white 6th Conn. and 9th Maine. The medical records indicate that when the salubrity of soldiers in all three regiments did not soon improve they were sent north to convalesce. This was especially true for those that contracted malaria, fevers, chronic dysentery, and other debilitating illnesses. The 33rd USCT did not have this benefit and few were transferred north to recuperate. Thus African Americans, especially former slaves, faced a dual dilemma in health care that centered not only race and the racism that was inherent in nineteenth-century culture and science, but social class. Few white surgeons volunteered to serve in Black regiments, making it difficult for many USCT units to have the required minimum of three surgeons. Col. Higginson (1984:246), commander of the 33rd USCT, addressed the larger issues tied to medical care in his regiment when he indicated that his troops had been:

...injured throughout the army by an undue share of fatigue duty, which is not only exhausting but demoralizing to a soldier; by the unsuitableness of the rations, which gave them salt meat instead of rice and hominy; and by the lack of good medical attendance...[They] needed prompt and efficient surgical care; but almost all the colored troops were enlisted late in the war, when it was hard to get good surgeons...

The 33rd USCT also experienced difficulties obtaining basic medical supplies as some medical purveyors refused to fill orders for Black regiments. Dr. Seth Rogers (1863b), an abolitionist who was the unit's surgeon, expressed in January 9, 1863, that he had to travel to Hilton Head to "test the honesty of a certain medical purveyor, who does not incline to honor the requisitions of the surgeon of the 1st Reg. S.C. Vol's. He has not yet heard of the popularity of black regiments, but Uncle Samuel will teach him that..." Apparently, Rogers did not convince the purveyor, who continued to deny the surgeon supplies. When this was reported to abolitionist General Rufus Saxton, military governor of the Department of the South, Saxon told Rogers told to draw what he needed from New York City (Rogers 1863b).

It could be argued that the social class, or lack thereof, of most of the 33rd USCT also made them powerless to advocate for better health care. The regiment was mostly comprised of illiterate former slaves. Whilst they had family, they did not have the benefit of class, education, or influential social networks due to the structurally violent nature of slavery (Reid 2002). This was a stark contrast to the 54th Massachusetts, who had strong family support networks, educated elite members of the Black middle class, and political clout, including staunch backing from the state governor (Reid 2002). These connections were influential in buffering poor military policies as the 54th had surgeons and powerful supporters in Massachusetts that would have denounced deficient medical treatment.

The 54th Massachusetts' higher rates of northern transfers, furloughs, and discharges attest to this and imply that the regiment had access to slightly better health care when compared to their recently emancipated brethren in the 33rd USCT

(Table 8.2). Only a few of these contraband soldiers received the benefit of a northern relocation, away from the heat, humidity, and pestilence of the South, to recuperate from the fevers and other illnesses endemic to the southern states. Most remained in the Lowcounty, convalescing in Beaufort or Charleston post hospitals, where the possibility for reinfection or coinfection with malaria, or other insect-vector-based viruses (yellow fever) and illnesses, remained high. Thus, the federal army did not provide equal medical care to all troops and were the least concerned with regiments comprised of recently emancipated slaves.

These indifferent attitudes toward African American soldiers, especially former slaves, were tied to larger beliefs about Black biological differences and disease susceptibilities (Savitt 1978). Many whites thought Blacks were resistant to fevers, and better adapted to hot, humid climates, with a higher tolerance for pain and manual labor, but were more susceptible to respiratory ailments, scrofula, and smallpox (Savitt 1978). This was especially true for former slaves who were regarded as being "seasoned" or adapted to the harsh southern climate and its respective diseases. These ideologies influenced how army officers and surgeons treated their troops and would have impacted diagnoses as well as the amount and types of medical intervention given. For example, sable soldiers consistently had higher death rates from smallpox, which became epidemic in some regiments. Army physicians believed Blacks possessed an innate susceptibility to smallpox and were destined to die from the illness; even treatment could not prevent their demise (Humphries 2008; Downs 2010). Dr. Seth Rogers (1863a), surgeon of the 33rd USCT, also ascribed to these biological "differences," indicating that: "The difference in physiognomy among them [33rd USCT] now seems to me quite as marked as among the whites and the physiognomy of their diseases is quite apparent to me."

Apart from differential access to medical care and perceived biological differences, the prior experiences of the 33rd USCT as slaves and contrabands likely contributed to their poor health. Whilst enslaved, they received weekly rations of corn, molasses, salted pork, fatback, or fish, with additional vegetables grown in allotted garden plots, and a small pen for an edible mammal or fowl (Stampp 1965; Genovese 1974; Savitt 1978). Clothing was rationed at least twice year, depending upon the slaveholder (Washington 1901; Douglass 1845; Savitt 1978). Living conditions were crowded as five to ten slaves shared a cabin (Savitt 1978). These structures stood in close proximity to each other, constituting their own urbanized environment (Savitt 1978). Most lacked insulation, possessed dirt floors, and had a minimum of one widow with no glass (Washington 1901; Savitt 1978). These living quarters, combined with poor sanitation, lack of germ knowledge, and the physical exertion required of slavery resulted in enslaved bodies performing a careful physiological balance to maintain homeostasis for vitality. Diets lacking adequate nutrition made slaves susceptible to dietary deficiencies. Nonexistent sanitation, outdoor labor, lack of proper clothing, and crowded living conditions resulted in exposure to insects, parasites, and bacteria, and encouraged the transmission of illnesses, ultimately wreaking havoc on a slave's immune system prior to military enlistment.

The federal army, desperate to keep enlistments up, were often indifferent to health issues amongst Black recruits. Union physician Ira Russell observed, "little discrimination was used in the selection of Negro soldiers," especially the large

numbers of former slaves "in feeble health, with impaired constitutions, broken down by exposure and privation while escaping from their masters, or from over-crowding in contraband camps and bad and insufficient diet. [that] were enlisted more with a view of filling up companies than promoting the efficiency of the service" (Humphries 2008:9–10).

This sentiment was not unique to Russell. Early militia and enrollment acts were initially restricted to native and foreign-born whites as federal law prohibited Blacks from serving in state militias, despite their service in the Revolutionary War (McPherson 2003). However, two Union generals, John C. Frémont and David Hunter, both abolitionists, attempted to liberate and enlist slaves prior to 1863. Frémont, commanding general of the Department of the West, declared "martial law throughout the State of Missouri" on August 30, 1861, and indicated that property of Missourians who took up arms against the United States would be confiscated and their slaves liberated (United States War Department 1894:221). Lincoln, concerned over losing Missouri to the Confederacy, requested Frémont amend his declaration to reflect the federal Confiscation Act of 1861, which only liberated slaves utilized by Confederates in their war effort (Faust 1986:291). Frémont refused and was relieved of duty.

Hunter, commanding the Department of the South, issued his General Order No. 11 in May of 1862, declaring his department "under martial law" and granting slaves their freedom (United States War Department 1894:818). Congress initially approved Hunter's order but Lincoln rescinded it stating that Hunter "nor any other...person has been authorized by the Government of the United States to make proclamations declaring the slaves of any State free, and that the supposed proclamation now in question...is altogether void..." (United States War Department 1894:818).

Lincoln considered Frémont and Hunter's actions as "an ill-conceived attempt to turn the war to save the Union into a war to abolish slavery" (Faust 1986:291). He excluded from the EP the neutral border states of Delaware, Maryland, West Virginia, Kentucky, and Missouri so that they would not join the Confederacy in order to preserve their chattels. These states had strategic importance for transporting federal supplies and troops into the southern and western fronts. Furthermore, the Union Army utilized the slave population in these states as servants, carriage drivers, groomsmen, and laborers whilst financially recompensing their masters until the war's end (Berlin et al. 1992).

The EP signaled the official mustering in of African Americans in the Union Army. For southern defacto-free males, the July 1862 Second Confiscation Act, passed prior to the EP, allowed for the enlistment of former slaves (Wise et al. 2015). African American men, regardless of their location, had mixed attitudes about service. Some northern Black males eagerly volunteered, whilst others objected due to disillusionment with the existing racial inequality in the North and lack of civil and voting rights. Former southern slaves also had reservations about the federals. Many "did not want to fight in a cause that did not promise them freedom" (Wise et al. 2015:108). African American recruitment rapidly increased after the Military Draft Act of March 3, 1863. Two months later, the government established the Bureau of Colored Troops, which kept military service segregated by race and almost all Black regiments had white commanders.

Many unionists hoped that emancipated slaves would eagerly enlist, especially abolitionists who had travelled south to educate and encourage freedmen to volunteer for military service (Rose 1976). However, they experienced resistance, especially on the South Carolina Sea Islands, home to the 33rd USCT (Rose 1976). Abolitionists complained that the former bondsmen were "apathetic" to the war effort and the concept of patriotism (Rose 1976:266). They were more interested in remaining on their former master's lands, growing their own sustenance, and providing for their families (Rose 1976). Major General Hunter began recruiting Black males on the islands as early as April of 1862. In May, federals in Beaufort began gathering all able-bodied contrabands between the ages of 18 and 45 years old capable of bearing arms. Men were informed that they had to go with the soldiers, but no one would be impressed into service (Wise et al. 2015). Some had previously been forewarned by federal authorities and went without protest. However, amongst those that had not been notified, soldiers "were forced to sweep through the fields seizing workers before they had time to gather up any belongings or say good-bye to their families" (Wise et al. 2015:110). When they arrived at processing camps, Hunter true to his word, allowed the men to choose their fate.

However, by 1863 the federal military needed high enlistment numbers to replenish the daily losses of soldiers from disease and combat. Thus, liberation and conscription went hand in hand as the federal government began to impress former slaves into USCT regiments (Rose 1976). According to historian Willie Lee Rose (1976:267), when the men "did not come voluntarily, squads of [Union] soldiers forcibly herded them into the [military] camps. Surprise encirclements by day and sudden seizures by night became ordinary occurrences" on the Sea Islands. The troops utilized for these missions were "black soldiers already in the 'contraband' regiments" who were "not overly nice in their methods and shot at random" frequently injuring people (Rose 1976:267). In one instance, a man legally excused from conscription "was killed by a Negro press-gang that attempted to bring him in against his will" (Rose 1976:267). Another account described how former female slaves defended their male relatives against a nighttime impressment raid by attacking Black soldiers from the 54th Massachusetts "with their hoes and were in turn fired upon" (Rose 1976: 267).

Seizure of former bondsmen for the federal war effort continued into 1864, when Congress allowed state governments to fill their draft quotes in the occupied South (Rose 1976). Officials now lured African Americans to enlist with a \$300 bounty. Rose describes how recruitment officers quickly "descended upon the [sea] islands like the plagues of Egypt, seized men at random, and as often as not pocketed the bounty money themselves" (Rose 1976:269). The appearance of a military uniform in African American Sea Island communities "was enough to break up a church service, send the schoolchildren scurrying away, or cause the men to drop their hoes in the field and make for the woods" (Rose 1976:268).

Not all former slaves avoided enlistment. Volunteers took advantage of the educational opportunities offered by abolitionists in regimental camps that built new identities, created cultural values, and defined their citizenship (Wilson 2002). Many also, through federal assistance, legally married their wives and claimed their children (Wilson 2002).

The use of African Americans to fill the ranks, by voluntary enlistment or conscription, continued throughout the war as did attitudes about biological differences and inferiorities. Apart from receiving unequal access to medical care, African American troops were often relegated to humiliating fatigue duty instead of active combat (Higginson 1984; Wilson 2002). Many white federal officers believed these men were incapable of performing as soldiers and were hesitant to command and arm Blacks troops (McPherson 2003). These underlying attitudes were summed up by Corporal Felix Brannigan, of the 74th New York, when he stated that "we don't want to fight side and side with the nigger...We think we are a too superior race for that" (McPherson 2003:165). Others felt emancipated slaves were "too servile and cowardly" to be efficient troops (McPherson 2003:166). These beliefs prompted the government to use Black soldiers mostly for noncombative labor detail and reserved white troops for battle (McPherson 2003; Hargrove 1988). Biological beliefs about Black bodies being better "adapted" to heavy labor, hot weather, malaria, and other endemic fevers prevalent in the occupied South further justified the use of Black regiments for arduous fatigue duty, including the creation of defensive trenches, earthen fortifications, and railroads. These troops were also forced to do gang labor, load and unload vessels, and harvest cotton, corn, and other crops (Hargrove 1988; McPherson 2003). After commanders of African American regiments complained about the toll fatigue duty had on their forces, Secretary of War Stanton announced in June 1864 that the practice of using Black troops "to perform most of the labor on fortifications...and fatigue duties of permanent stations and camps will cease and they will only be required to take their fair share of fatigue duty with the white troops" (United States War Department 1900:431). That same month, Congress passed an act stating that "all persons of color" that had been mustered into the military "shall receive the same uniform, clothing, arms, equipments, camp equipage, rations, medical and hospital attendance, pay and emoluments, other than bounty, as other soldiers of the regular or volunteer forces of the United States of like arm of the service, from and after the first day of January, eighteen hundred and sixty-four..." (United States War Department 1900:448). Whilst these laws were meant to equalize the treatment of Black troops physically, medically, and biologically, sable soldiers, later turned Buffalo Soldiers, still struggled in regard to health and equality due to perceived disease ideologies and beliefs about Black susceptibilities and resistance. The US military was not completely desegregated until President Harry S. Truman issued Executive Order 9981 in July of 1948.

### Conclusion

The findings of this study clearly illustrate that sable soldiers received differential medical care due to a lack of surgeons eager to treat African American troops and white beliefs centered on Black biology and inferiority. The stresses of slavery and contraband camps also resulted in poor health amongst sable soldiers that had been slaves, as illustrated by the 33rd USCT. Military life further compromised

their immune systems, resulting in increased susceptibility to illness. Northern free-born African Americans comprised of the Black middle class, like the 54th Massachusetts, had access to political connections and social networks, which positively impacted their health outcomes and protected their families from destitution. Former slave soldiers did not have this luxury. Their loved ones remained destitute in crowded, pestilential contraband camps where many perished from malnutrition and disease.

The Civil War had lasting health impacts for African Americans, especially those from the South, for generations to come. The Freedman's Bureau assisted former bondsmen and soldiers to some extent, providing rations and basic medical care. The Bureau also helped them find jobs through the implementation of enforced annual work contracts, many with former slave masters, which eventually lead to the southern sharecropping system prevalent in the twentieth century. Housing, a corn and pork-based diet, and minimal access to resources and medical care in a segregated South where pellagra and hookworm was endemic did little to improve the salubrity of African Americans. Many chose to migrate north in the late nineteenth and early twentieth centuries. This great migration further exacerbated health issues amongst African Americans, many of whom were malnourished and unprepared for the cold northern climate and crowded urban living conditions (Giffin 2005). Historical statistics indicate that from 1870 until the early-twentieth century, African Americans had higher rates of infant mortality, infectious diseases, and nutritional deficiencies (Billings 1885, 1986; King 1902). Osteological research has also confirmed this. Studies by Rose (1989), Rathbun and Steckel (2002), and myself (de la Cova 2011, 2014) have demonstrated that post-Civil War African Americans from the South suffered from high frequencies of infectious diseases. These trends continue to affect African Americans, who have higher rates of infant mortality, tuberculosis, heart disease, hypertension, and other illnesses. Thus, the Civil War resulted in historical events that triggered continued biological stress and poor health amongst African Americans that medical care providers and the Black community continue to combat.

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# Bioarchaeology of Women and Children in Times of War

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This collection of studies demonstrates that during periods of violence and warfare, many suffer beyond combatants directly involved in battle. From prehispanic Peru to Civil War-era United States to the present, warfare has been and is a public health disaster, particularly for women, children and other vulnerable groups. Individuals and populations suffer from displacement, loss of food and resources and from increased risks of disease and disability.

Bioarchaeology provides a more nuanced lens through which to examine the effects of warfare on morbidity and mortality, bringing individuals not traditionally considered by studies of warfare and violence into focus. Inclusion of these groups in discussions of warfare increases our understanding of not only the biological but also the short and longer term social costs of warfare.

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