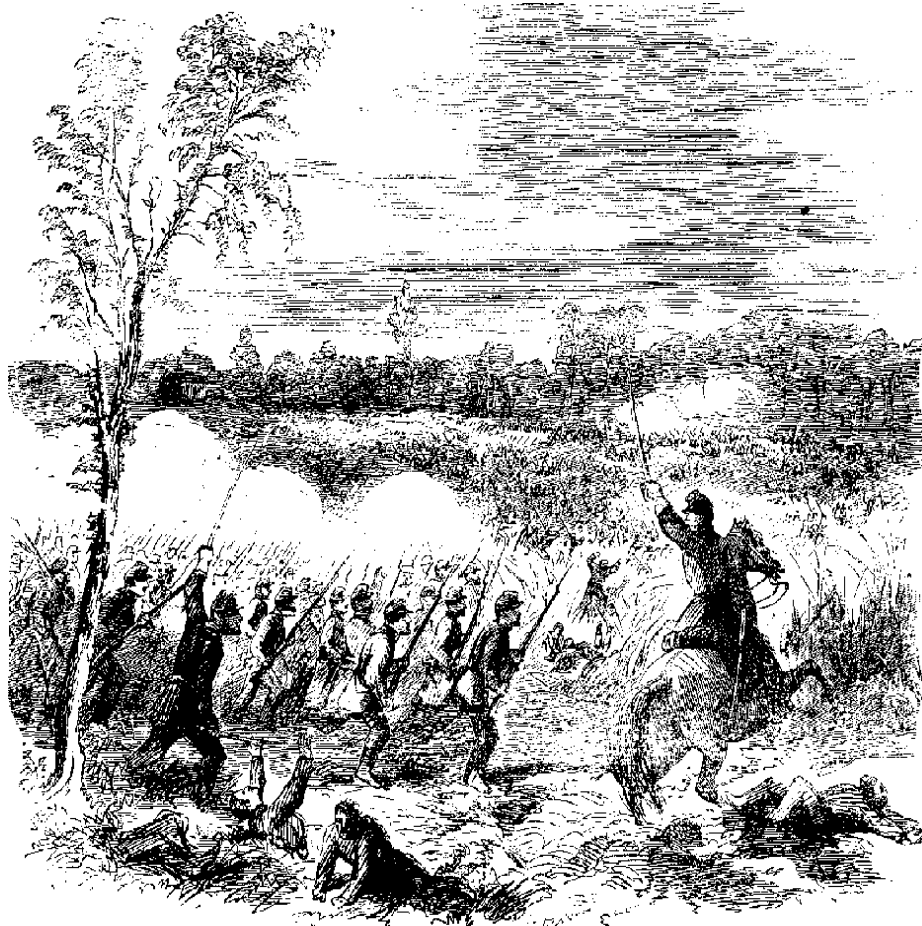


Warfare of Wounds and Disease:
The Challenges of Health Care
For Hoosier Soldiers
During the Civil War



Middle School and High School Lessons

The Colonel Eli Lilly
Civil War Museum,
An Indiana War Memorials Museum

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Description of Lessons

These lessons are designed to introduce students to the challenges of medical care for soldiers during the Civil War. The Indiana Sanitary Commission worked to support soldiers in the field with necessary food and supplies to aid their recovery from wounds and disease. Citizens played an active role by raising money and donating goods. Women became involved as nurses in ministering to the men who were treated and recovering in tent hospitals and general hospitals. Four lessons are presented here. These include: Governor Morton and the Indiana Sanitary Commission; Hoosiers Respond to the Call for Help; Civil War Nurses; and Hospitals, Disease and Medical Practices. Several primary sources are presented for student discussions and activities, and a sample letter written by a Civil War reenactor is included.

INSERT ACADEMIC STANDARDS HERE

Objectives

1. The students will be able to summarize the ways in which the state of medical knowledge adversely affected the health of Civil War soldiers.
2. The students will be able to identify specific contributions of Hoosier citizens and groups in the areas of health, medical supplies, and hospitalization of soldiers.
3. The students will be able to examine primary sources and interpret the ways in which injuries and illnesses were treated during the Civil War.

LESSON 1.

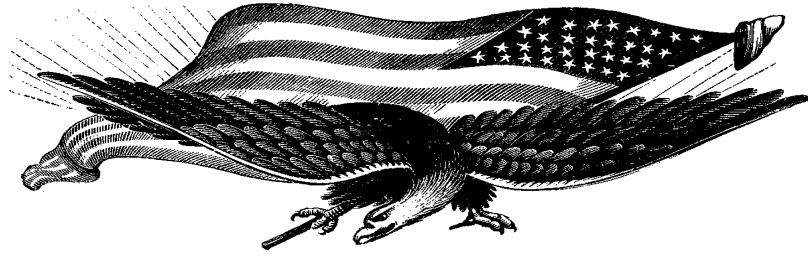
GOVERNOR MORTON
& THE INDIANA SANITARY COMMISSION

Activities

1. After reading about Governor Morton and the Indiana Sanitary Commission in Handout 1, use the following questions to promote discussion in class.
 - a. What were three objectives or goals of the Indiana Sanitary Commission?
 - b. In what way does the Indiana Sanitary Commission differ from other similar organizations?

Did You Know?

- Approximately 618,000 soldiers died in the American Civil War. This was twice as many Americans as perished in WWII.
- The Battle of Gettysburg alone had more than 51,000 casualties, which was more than all previous U.S. wars combined. It was the bloodiest battle in U.S. history.
- There were approximately 200,000 Hoosier soldiers who served in the Civil War. Of these men, almost 25,000 were killed or died during the war.
- Over 2.5 million soldiers fought for the Union. Of those numbers, approximately 360,000 died. More than 1 million fought for the Confederacy and approximately 258,000 perished.
- Of the approximately 618,000 deaths during the Civil War, only 200,000 were from injury or death in battle. This means that more than 60% of the soldiers died from disease or illness, not from battle wounds.
- A U.S. Sanitary Commission Report noted that although two out of three Civil War soldiers died from conditions other than battle wounds, this was some improvement over the death rate during the Mexican War of 1848. In that war the deaths due to illness and disease were six out of seven.
- The Sisters of Providence of St. Mary's of the Woods in Vigo County were charged with nursing returning soldiers at the newly established City Hospital in Indianapolis.



HANDOUT 1

GOVERNOR MORTON & THE INDIANA SANITARY COMMISSION

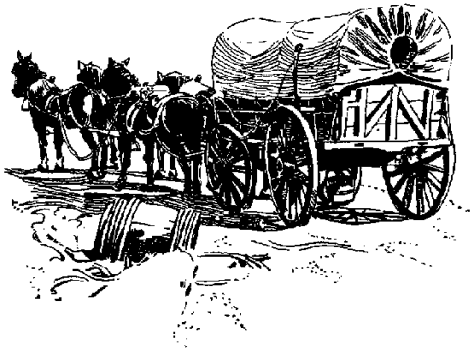
In May of 1861, preparing for what would be called the First Battle of Bull Run or Manassas Junction, neither the Union nor the Confederacy had any idea that this battle would be the first of many in a war that would last four years. It soon became clear that this "Civil War Between the States" would not be easily fought and won, so both sides needed to move quickly to better equip and organize themselves for warfare. In addition to enlisting and mobilizing troops and organizing weapons and supplies, preparations had to be made for the care of ill and injured soldiers.

One problem that faced both the Confederacy and the Union was the collection and transportation of supplies to their soldiers. In the North, the U.S. Sanitary Commission was founded by private individuals and later recognized by the U.S. Government. It was organized to monitor hospitals and to collect and distribute supplies. Citizens were anxious to help soldiers and sent fresh food which often spoiled or rotted in transport. They also sent foodstuffs in glass jars that were improperly packed and which broke and leaked. The U.S. Sanitary Commission worked to organize these efforts and helped let people know of soldiers' specific needs, providing lists and ideas for appropriate items to send. The U.S. Sanitary Commission also conducted fundraising efforts, such as auctions or fairs to raise money for purchasing supplies.

At the beginning of the war, President Lincoln requested that Indiana Governor Oliver P. Morton recruit 6,000 Hoosier soldiers for the war effort. Governor Morton exceeded this request by asking for 10,000 volunteers, and in seven days more than 12,000 Hoosier men heeded his call! The enthusiasm and support of the Hoosier state was also strong when it came to the care of the sick and wounded. The U.S. Sanitary Commission and the Union Army were slow in providing adequate help to the wounded and to the hospitals that served Indiana men. In March 1862, Indiana troops suffered heavy losses. Governor Morton responded by forming the Indiana Sanitary Commission. Its goal was to distribute supplies for Hoosier troops specifically, not only in hospitals but also in the field. He appointed William Hannaman, an Indianapolis businessman, as director. According to the Report of the Indiana Sanitary Commission made to the Governor dated January 2, 1865, the mission of the Indiana Sanitary Commission was as follows:

"The Commission has special claims upon the men and women of Indiana. Its object and mission are to care for, console, and comfort the gallant men who have gone away from the peace and plenty of their homes to endure the hardships of the march, the strife of battle and the tedium of the hospital. Everywhere, on the march, in the field, and in the hospital, we follow and supply them. No other organization seeks to do so much; and hence the greater duty and interest of our citizens in upholding their own Commission. Nor can we, nor the generous public whom we represent, be considered selfish. It is to be remembered that while we look after our own sick and wounded men in the hospitals, we distribute to all alike in the hospitals. We pass by no sick and wounded man, whether he comes from Indiana or from any other State. The prominent feature of difference between this Society and other Sanitary Commissions is, that we distribute our stores to companies and regiments in the field. While recognizing the importance of caring for soldiers in hospital, we think it more important, if possible, to prevent disease, and keep our men out of the hospital."

Report to the Indiana Sanitary Commission
January 2, 1865



LESSON 2

HOOSIERS RESPOND TO THE CALL FOR HELP

Activities

1. Read the excerpts from the Indiana Sanitary Commission Report in Handout 2a. Discuss the list of items sent and the specific uses. How would this list differ from one sent to soldiers today?
2. Demonstrate for students how "lint" for bandages was made. Take a worn piece of cotton fabric and stretch it over an upside-down plate. Use a table knife to scrape the fabric, creating lint. The lint was collected and used as dressing for wounds, like we would use cotton balls.
3. Discuss what sorts of "care packages" might be sent to U.S. troops stationed in the U.S. and abroad today. How might climate, season, or culture affect the types of items that soldiers would need or appreciate today?
4. Compose Valentines for Veterans and send them to a local Veterans' Administration Hospital.
5. Read the fictional *Letter from a Surgeon* that follows in Handout 2b. Working in small groups, students will complete a list of items to send to Dr. Wishard, via the Indiana Sanitary Commission. Due to limited funds available, only half of the requested items can be sent. Students must decide which items are most necessary or appropriate to send and will compose a letter to Dr. Wishard, explaining how they decided which items to send given the limitations. You will note in the letter that Dr. Wishard refers to the anticipated arrival of the steamer, the City of Madison. In reality, the City of Madison ported at Vicksburg on July 4, 1863, with some of those supplies.

HANDOUT 2a

HOOSIERS RESPOND TO THE CALL FOR HELP



Hoosiers heeded the call of Governor Morton and the Indiana Sanitary Commission with enthusiasm. Individuals, Ladies Aid Societies, churches, towns, counties and groups of children made contributions. Between February, 1863 and November, 1864, the citizens of Indiana contributed \$142,411.08. These monies were used to purchase and deliver needed items to sick and injured Indiana soldiers and others in need. Below are two lists of actual shipments of goods as documented in the 1865 Commission Report to the Governor.

Shipped to Nashville, Tenn., Feb. 10th, 1864, care Dr. Daniel Meeker

28 pillows	65 gallons kroust	42 handkerchiefs
118 pillow cases	20 gallons apple butter	320 pounds dried apples
75 sheets	220 pounds butter	80 lbs. small fruit, dried
7 comforts	150 pounds crackers	63 cans fruit
46 towels	70 pounds dried beef	20 gallons pickles
7 coats	184 pairs socks	17 pounds lint
164 shirts	50 pairs mittens	239 bandages
116 pairs drawers	20 pairs slippers	26 pads and cushions
		65 pounds rags

Shipped to Chattanooga, Tenn. June 27, 1864, care J.H. Turner

80 pillows	10 bushels corn meal	3 bushels potatoes
160 shirts	1 barrel flour	134 bottles ale
86 pairs slippers	25 bandages	120 " wine
40 housewives	38 arm slings	310 pounds farina
51 lbs. small fruits, dried	1114 magazines and papers	700 " crackers
6187 pounds dried apples	24 plates	209 " hominy
2 boxes lemons	15 dishes	20 gal. molasses
45 gallons pickles	8 pillow cases	8 pounds lint
131 bottles brandy	100 pairs drawers	152 pounds rags
15 bottles corn starch	35 handkerchiefs	12 coffee pots
8 bottles dried herbs	12 pounds soap	15 tea pots
273 dozen eggs	500 " dried peaches	74 pounds con- centrated milk
10 pounds dried beef	220 cans fruits	91 pads and cushions

Handout 2a continued

A look at these lists provides some insight into the daily lives and living conditions of soldiers in camp and in the hospital. The items had been donated or paid for by Indiana citizens in an effort to help their soldiers. Evidently the Union Army alone or the U.S. Sanitary Commission were not able to provide an adequate supply of food, clothing, bedding, and medical supplies such as bandages. Some of these supplies were shipped because soldiers had written home and asked for them specifically. Soldiers experienced cravings for "krout" (sauerkraut) and pickles, in part because they were suffering from scurvy caused by a Vitamin C deficiency that caused them to crave these kinds of foods. Other foods or drinks were sent for medicinal purposes. Included in other Indiana Sanitary Commission lists were onions. Onions were thought to be effective in the treatment of intestinal disorders. In fact, General Ulysses S. Grant was reported to have said, "I will not move my Army without onions" because of this belief. Blackberries were effective in treating diarrhea, and blackberry cordials were fruit flavored drinks that were also sent to soldiers.

A "housewife" was a sewing kit which consisted of items such as needles, thread, buttons and scissors. At home, mending had mostly been the responsibility of wives, mothers and sisters. Now the soldiers were tasked with mending their own clothes, and the term "housewife" seemed an appropriate name for a sewing kit.

Bandages, arm slings, and rags for making more bandages were sent to the soldiers to help supplement what the Union Army had already supplied. In both lists, "lint" was included. Lint was the 19th century equivalent to cotton balls and was used for covering wounds. It was made by scraping the fibers from fabric.

The Indiana Sanitary Commission played an important role in providing food, clothing and supplies to Hoosier soldiers, as well as those from other Union states. These shipments helped to keep the men in better health and served to boost their spirits, too.

HANDOUT 2b

LETTER FROM A SURGEON

Dr. W.M. Wishard was a Civil War surgeon who worked closely with the Indiana Sanitary Commission. What follows is a fictional letter from Dr. Wishard. This letter was written by Mr. Fred Schaefer of Indianapolis. Mr. Schaefer is a member of the Indiana Civil War Medical Society and is a Civil War reenactor. A Civil War reenactor is a person who assumes the role of a soldier or civilian during that time period, participating in battle reenactments and programs. As a reenactor, Major Schaefer is a United States Surgeon, and he has written this letter as Dr. Wishard might have. The letter is written from the field in Vicksburg, Mississippi.

Headquarters, General A. Stone
Quarter-Master Vicksburg, Miss.
May 15, 1863

U.S. ARMY MEDICAL DEPARTMENT SANITARY REPORT

General: I have the honor to submit the following report for acquisition of store supplies, to a Mr. William Hannaman, Chief Agent of Indiana Sanitary Commission, located in Indianapolis, Indiana.

I Dr. Wm. H. Wishard of Johnson Co. a contract surgeon in charge of the 83rd IND. Regimental Hospital, sent a previous report April 25, 1863 asking for sanitary supplies, which have not been issued at this time of writing.

As of this day, our hospital has nearly 30 patients poorly fed and clothed, our supplies are almost exhausted, and our soldiers' general condition deplorable.

We are still experiencing a shortage of bandages and arm slings, forcing us to use rags in their place. I've been told by you Gen. Stone that the steamer "city of Madison" sanitary ship will be sent and hopefully be here by the fourth of July.

I am submitting a list of food, clothing and supplies we need for our regiment and hospital.

40 barrel potatoes, 10 barrels onions, 10 of turnips, 20 barrels green apples, 6 barrels of dried apples, 2 barrels of cabbages, 20 dozen cans of fruit, 1 box of bottled spirits, 200 bandages, 15 pound of lint, 30 arm slings, 100 pairs of socks, 100 pounds of crackers

General Stone: I hope this report makes it to Mr. Hannaman and his Sanitary Commission.

I wish I could describe to you all I have witnessed tonight. Since dark I have been nearly a mile from our camp to visit our quartermaster, and on my return I thought of home and its quiet scenes compared with what I see about me. The moon is just rising; the whole country is enveloped in clouds of smoke and dust; camp-fires are on every hill and in every hollow for miles around. The incessant roar of cannon and constant crack of muskets from our sharpshooters keep up such a din and confusion as are rarely heard.

I talked with some Rebel deserters today who came out last night. They told me the Rebel generals say they will have to surrender, but we will not celebrate in Vicksburg.

Our men are working day and night to have our heavy cannon in position to open fire tomorrow morning. "Many poor fellows will take their last look at this green earth that day."

As we anxiously await shipment of our supplies, Mr. Hannaman, Godspeed to you and the "City of Madison."

Your Obedient Servant,
William H. Wishard, M.D.
Surgeon

LESSON 3

CIVIL WAR NURSES

Activities

1. "Nurses in the Civil War" (Handout 3a) is designed to introduce students to the development of the role of nurses in the Civil War. After reading the background information, divide the class into two groups for the following writing assignment.

Harriet Colfax's family was at first against her decision to be a nurse for soldiers.

(Group 1) If you were Harriet and you had to convince your family to support your decision, what reasons would you list? Pretend that you are in Harriet's position. Write a letter to one of your parents to defend your decision, trying to persuade him/her to support your decision.

(Group 2) Assume the role of Harriet's mother or father. Write a letter to her explaining why you are opposed to her decision to travel to St. Louis to work as a nurse in an army hospital.

2. Assign "Nursing Qualifications" (Handout 3b) and have students compare and contrast the requirements, training and duties of nurses then and now.
3. Dorothea Dix was one of the most noted nurses of the Civil War. She had a reputation for being an excellent nurse and was very strict in her requirements for nursing candidates. A text of a letter from Ms. Dix is provided as Handout 3c. The original is found in the Records of the Surgeon General's Office, Record Group 112, Volume 1, Circulars and circular letters, 1861 - 85. After reading the text of the letter, students can discuss Ms. Dix's reasoning behind such requirements. Comparisons can also be made to current nursing requirements.
4. To learn more about the contributions of women to the field of medicine during the war, research the accomplishments of the following women: Dorothea Dix, Mary A. Bickerdyke, Clara Barton, Dr. Elizabeth Blackwell, Hannah Ropes, Dr. Mary Walker, Louisa May Alcott, Ella King Newson, Sally Tompkins, Phoebe Yates Pember, and the Sisters of Providence. Handout 3a or 3b can be used as a springboard for this research. Several websites listed under Online Sources following the Sources section can be used.

HANDOUT 3a

NURSES IN THE CIVIL WAR

When the war began, the U.S. Army hospital staff consisted of only an army doctor and an assistant. The assistant was responsible for administering medicine, bandaging, cleanliness of the hospital, and, if necessary, even the dental work of patients. During peacetime these tasks were more than could be done well by one person alone. When the war began, it became obvious that more staff was needed, so several other positions were added to army hospitals. By 1862, matrons, assistant matrons, ward matrons, nurses, cooks, and laundresses were added. This enabled U.S. Army hospitals to be better staffed to treat and care for wounded and ill soldiers.

At the start of the war, the nurses in army hospitals were always men and usually were the more able-bodied patients who were well enough to get around and help the others. In some cases, family members would travel to camps and hospitals to care for their family members. Not only would this ensure that their ailing family member would receive personal attention, this type of care would also greatly help the morale of the soldier. It was noted that "nostalgic influence" (severe homesickness) sometimes contributed to a soldier's death. The presence of a family member might help a soldier survive. Unfortunately, many were unable to travel the distance necessary to be with their hospitalized soldier.

At the beginning of the war, women were not accepted as nurses in army hospitals. There were some people who felt that it was not appropriate for women to be around soldiers who came from all walks of life, some who might misbehave around women or make offensive comments. Others argued that few women were trained in nursing skills. Even those women who had received nursing training were trained in home nursing care and not battlefield nursing. Nevertheless, the army needed nurses, and hiring women as nurses would help to ease the shortage. Two years after forming the Indiana Sanitary Commission, Governor Morton called for the women of Indiana to be nurses in military hospitals and on hospital ships.

Women throughout the North and South heeded the call for help in the field of medicine. Some of the more well-known women include "Mother" Mary Bickerdyke, Clara Barton, Dorothea Dix and Louisa May Alcott. Women from Indiana also played a very active role in the care of the sick and wounded. One example is Harriet R. Colfax.

Harriet R. Colfax, Union Nurse

When Mrs. Harriet R. Colfax of Michigan City, Indiana heard of the Union's need for nurses, she answered the call. Mrs. Colfax was a widow, and her husband had been a relative of Schuyler Colfax, who would later become Vice President of the United States from 1868-72. Although her family was opposed to her wish to serve her country as a Union nurse, she was determined. Her father had been an invalid (a person disabled by illness or injury), and her mother had spent much time tending to neighbors who were ailing as well. These experiences gave Harriet some background in ministering to (nursing or comforting) the sick as well as instilling in her a sense of duty to her country. Her family came to realize just how strongly she felt about helping the war effort, and at the end of October, 1861 Mrs. Colfax headed to St. Louis. She served as an army nurse for two and a half years, first at the Fifth Street General Hospital in St. Louis, then on a hospital boat on the Ohio River, and then again in St. Louis at the General Hospital at Jefferson Barracks.

Harriet helped patients in a number of ways. She found that the supplies received from the Sanitary Commission were lacking, and so she contacted her friends in Indiana and made arrangements for them to send needed supplies and food for the ailing soldiers. While working on the *Louisiana*, a hospital boat, Harriet traveled to the Tennessee River where wounded men would be picked up and transported back to St. Louis to the hospitals there. This hospital boat was also responsible for transporting 275 gravely wounded men from the Battle of Shiloh. Harriet and the other nurses had to work around the clock to tend to these men. There was no concept of a working "shift", and there was no one to relieve the nurses, so they tirelessly and selflessly looked after the needs of the wounded until they reached Cairo, Illinois. There the men could be transferred to a hospital in St. Louis.

Writing Assignment

Harriet Colfax's family was at first against her decision to be a nurse for soldiers.

a. If you were Harriet and you had to convince your family to support your decision, what reasons would you list? Pretend that you are in Harriet's position and write a letter to one of your parents defending your decision and trying to persuade him/her to support your decision.

b. Assume the role of Harriet's mother or father. Write a letter to her explaining why you are opposed to her decision to travel to St. Louis to work as a nurse in an army hospital.

HANDOUT 3b

NURSING QUALIFICATIONS

More than 3,000 women served as nurses during the war. Their duties included providing simple comforts such as reading, cooking, singing, writing letters or praying for soldiers. Nurses also changed dressings and administered medications. But this job also demanded much more challenging tasks in the worst of conditions for hours on end, depending upon the hospitals or areas in which these women worked. They earned about \$12 per month for their efforts, while surgeons earned up to \$150 dollars per month. It should be noted, however, that soldiers were paid about \$13 per month. These women were not working for dollars, but for the boys and men who were fighting for their cause.

The "qualifications" for female nurses were quite strict. This included no hoops in their skirts, no jewelry, no curls, and they were not to be physically attractive!

The Sisters of Providence was a group of religious women who settled on the Wabash River near Terre Haute in 1840. Their leader, Mother Theodore Guerin, had studied medicine and pharmacy in France. As was the rule, the Sisters were expected to have a basic understanding of medical care. In May 1861, a measles epidemic threatened the soldiers at Camp Morton. Because of their informal nursing training, Governor Morton asked the Sisters of Providence for assistance. A recently built \$30,000 hospital stood idle in Indianapolis. *The Daily Journal* of June 18, 1861 described their work this way: The Sisters "took charge of the cooking, cleaning, washing and general housekeeping." Their first request for help was "men who knew dirt when they saw it." After the rooms were cleaned to the walls, patients took up residence.

To learn more about the contributions of women to the field of medicine during the war, research the accomplishments of the following women: Dorothea Dix, Mary A. Bickerdyke, Clara Barton, Dr. Elizabeth Blackwell, Hannah Ropes, Dr. Mary Walker, Louisa May Alcott, Ella King Newson, Sally Tompkins, Phoebe Yates Pember, or the Sisters of Providence.

Circular No. 8

Washington, D.C., July 14, 1862

No candidate for service in the Women's Department for nursing in the Military Hospitals of the United States, will be received below the age of thirty-five years, nor above fifty.

Only women of strong health, not subjects of chronic disease, not liable to sudden illnesses, need apply. The duties of the station make large and continued demands on strength.

Matronly persons of experience, good conduct, or superior education and serious disposition, will always have preference; habits of neatness, order, sobriety, and industry, are prerequisites.

All applicants must present certificates of qualification and good character from at least two persons of trust, testifying to morality, integrity, seriousness, and capacity for care of the sick.

Obedience to rules of the service, and conformity to special regulations, will be required and enforced.

Compensation, as regulated by act of Congress, forty cents a day and subsistence. Transportation furnished to and from the place of service.

Amount of luggage limited within small compass.

Dress plain, (colors brown, grey, or black) and while connected with the service without ornaments of any sort.

No applicants accepted for less than three months' service; those for longer period always have preferences.

D. L. Dix

Approved,
William A. Hammond
Surgeon General.

LESSON 4

HOSPITAL, DISEASE AND MEDICAL PRACTICES

Activities

1. Provide students with a list of the vocabulary for the diseases and maladies from which soldiers most often suffered. Assign students to write a brief report further detailing each of the conditions. Discuss the ways in which these diseases and maladies would have influenced the effectiveness of the troops. Have students make recommendations for how these conditions might have been prevented.
2. Conduct a Medical Term Scavenger Hunt in the school Media Center. Handout 4b includes a list of diseases, maladies, and treatments. Make multiple copies of the list of terms, and cut apart the definitions along the dotted lines. Have students work in pairs to find the definitions of the terms, treatment or use during the Civil War, and present treatment or use. This information will be listed on the Scavenger Hunt Worksheet (Handout 4c).
3. Write a journal entry for one of the following people.
 - A 19-year old unmarried infantryman who is suffering from typhoid fever in a regimental hospital.
 - A 25-year old farmer and father of four who is recovering from an amputation in a general hospital.
 - A 13-year old drummer boy who is recovering from a badly sprained ankle in a field hospital.
4. The National Park Service at Harper's Ferry provides pictures of drawings of Minie balls and musketry (<http://www.nps.gov/hafe/burton-draw.htm>). Make copies for display or make transparencies for projecting onto a screen.

HANDOUT 4a

HOSPITALS, MEDICAL CARE AND DISEASE

Types of Hospitals

When a soldier was very ill or wounded, he would be treated at one of three types of hospitals: a field hospital, regimental hospital, or general hospital. A field hospital was set up close to battles. Field hospitals were usually set up in tents, barns, abandoned buildings, churches or homes close to the battlefield. An operating table for a field hospital might consist of a wooden door laid across two barrels. Doctors couldn't always rely on supply wagons to be able to deliver needed medicine and equipment, so they would carry their surgical kits and medical cases with them. Regimental hospitals were set up around encampments and would service the men of a particular regiment. [A regiment equals 10 companies, and one company is made up of 100 men.] Field and regimental hospitals were staffed by surgeons and soldiers and did not have the benefits of female nurses or the U.S. Sanitary Commission. Although these hospitals were known for their poor supplies and conditions, many men did not want to be transferred out to the general hospitals, since they felt they would receive better care in hands of men from their own regiments or companies. The general hospitals were where the most gravely wounded or ill were transferred. In Indiana there were Army hospitals in Jeffersonville, Evansville, Indianapolis, New Albany, and Madison.

Below are two descriptions by soldiers from Indiana. Ambrose Bierce of the 9th Indiana Volunteers describes his impression of a field hospital somewhere between Pittsburg Landing and Corinth. The second account is by Hiram R. Martin, who became a patient in each type of hospital due to illness. Both accounts are written exactly as the writer wrote.

"Hidden in hollows and behind clumps of rank brambles were large tents, dimly lighted with candles, but looking comfortable. The kind of comfort they supplied was indicated by pairs of men entering and reappearing, bearing litters; by low moans from within and by long rows of dead with covered faces outside. These tents were constantly receiving the wounded, yet were never full; they were continually ejecting the dead, yet were never empty. It was as if the helpless had been carried in and murdered, that they might not hamper those whose business it was to fall tomorrow."

The Collected Works of Ambrose Bierce, vol. 1, pp 246-247.

"I had a good many calls to make upon the Dr. I was troubled with Diarrhoea considerably, and had an attack of Intermittent fever...I commenced vomiting in the night, and by morning I was unconscious, and was carried on a stretcher to the Regimental Hospital which was a large square tent... I remained there I think a week or so, and was so sick that they transferred me to the general Hospital at Mumfordsville. My disease diagnosed as Pneumonia. This hospital was formerly used as a Tobacco warehouse, and there were perhaps 100 cots on the floor I was on. Dead Comrades were being constantly removed and other patients talking (taking) their places. I continued to be very ill and weak for some time. When the Army was moved forward to the front, all of the sick at Mumfordsville were sent back to Louisville, Ky and I with the rest. I went and was put in General Hospital No. 4 where I remained until about May 1st. I still remained very ill; had a terrible Cough, my right chest was sunk in and I had the appearance of a man with Consumption [tuberculosis]. The care I received there was fair, but it was not very cheering to wake up in the morning and find your nearest bunk mate had died during the night and had been carried out but such was the case many times."

Hiriam H. Martin, Co. G, 29th Ind. Volunteer Infantry

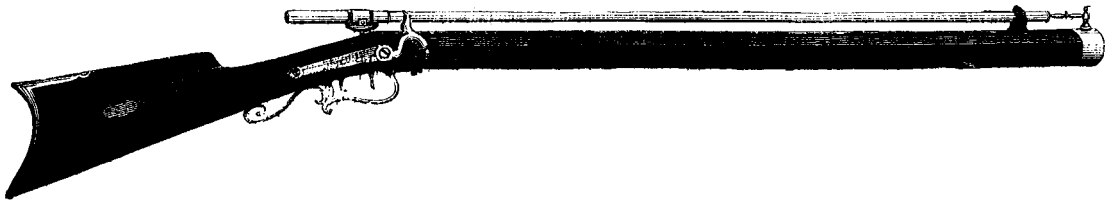
Source: Everson, Guy (Ed.), Service Afield and Afloat: A Reminiscence of the Civil War. Indiana Magazine of History, Vol. LXXXIX, #1, March, 1993, page 43.

Bacterial Siege, Operations and Illnesses

Many of the men who joined the ranks of fighting men had never been far from home. Not only did these experiences bring them into contact with men from all over Indiana and the rest of the country, it also exposed them to germs and viruses which were new to them. Childhood diseases such as **chicken pox, mumps** and **measles** would quickly spread to those young men who had never before been exposed to them.

Doctors of the time were not aware of how germs could be spread from person to person by coughing, personal contact, or contact with items that an infected person had touched. Many hospital facilities, especially the field hospitals, were very crowded and not particularly clean. Because of this, contagious diseases such as **typhus, typhoid fever, mumps, and measles** could easily spread from soldier to soldier.

In the mid-19th century people did not yet know about the connection between cleanliness and infection. People did not realize the importance of washing hands and even doctors did not know to wash their medical instruments between patients. It was not uncommon for doctors to use their fingers to inspect or clean gunshot wounds. Medical instruments of the surgeons would be wiped off on aprons that the surgeons wore over their clothes. It was likely that instruments would only be thoroughly washed at the end of the day. This practice led to infections for which there were not yet **antibiotics**.



A new innovation in weaponry also caused soldiers and their doctors many problems. The "Minie" ball, named after its French inventor, was shaped in such a way that it was much faster and more accurate than bullets of the past. Fired from most Civil War rifle muskets, it could hit a man almost a mile away. The lead Minie balls would flatten out when they hit their target, and this would cause gaping wounds and fracturing of bones.

Because of a lack of knowledge regarding infection, and due to the severity of Minie ball wounds, amputation became common practice during the Civil War. Surgeons were given the nickname "sawbones", because in order to save a victim's life, it was believed that a limb should be amputated immediately to prevent infection. There was a study that appeared to support this practice. A doctor presented his study describing how he was able to save all 19 of his patients who received immediate amputation of their affected limb. However, with 19 other wounded patients, he waited two or more days to see if infection would set in before he amputated. Of this group of amputees, only one patient lived.

There were no **antibiotics**, and **vaccines** were not used in general practice. Of all the medicines used, quinine was the most effective. It reduced fever, and the symptoms of some of the more typical ailments (malaria, measles, typhoid fever and typhus) included fevers. A lack of knowledge concerning the need for certain vitamins also affected the health of soldiers. These conditions helped contribute to the fact that over 60% of the Civil War soldiers' deaths were due to a condition other than a battle injury.

Innovations in Medical Practices

The experience of the Civil War provided doctors and surgeons with information that would lead to improvements in the field of medicine. It was noticed that the pavilion style of hospital seemed to provide a healthier atmosphere for soldiers. It was believed that the "airiness" of the long corridors and the presence of many windows provided "good air" for their patients. The fact that wards were separated from each other (and there was less crowding along with better ventilation) was important in preventing the spread of viruses by coughing and sneezing. The wide use of anesthesia during surgery helped to develop knowledge in that field. As an alternative to amputation, surgical resection or excision was implemented. It was not a new innovation during the war, but it was more widely attempted than it had been in the past. This procedure required the surgeon, when possible, to cut away the bone from an injured limb, extract it, and then reattach the remaining bones. This caused the limb to be several inches shorter than before, but the limb remained and was useful. This practice was more successful with arms than legs, however.



Metallic Artificial Legs.


**Made of Corrugated Brass or other Metals.
Patented Jan. 6th, 1863, by the Universal
Joint and Artificial Limb Co.**

Weight only Four Pounds.

**Soldier's price, \$50; Civillian's, \$75. Send for a Cir-
cular. J. W. WESTON, Agt., 491 Broadway, N. Y.**

HANDOUT 4B MEDICAL TERMS SCAVENGER HUNT

Use the following terms to conduct a Medical Term Scavenger Hunt in the school Media Center. Handout 4b includes a list of diseases, maladies, and treatments. Make multiple copies of the list of terms, and cut them apart. Have students work in pairs to find the definitions of the terms, treatment or use during the Civil War, and present treatment or use. The information the students gather will be listed on the Scavenger Hunt Worksheet (Handout 4c). [Terms with definitions follow for teacher use, or the Scavenger Hunt could be modified so that students receive the terms already defined.]

antibiotics	chicken pox	diarrhea	dysentery
ether	immunity	laudanum	measles
morphine	mumps	pneumonia	tetanus
typhoid fever	typhus	vaccine	

Vocabulary

antibiotics: a substance produced by microorganisms or synthetically (e.g., penicillin) and used to inhibit or destroy other microorganisms (e.g., microscopic organisms such as viruses and bacteria).

chicken pox: an infectious viral disease, especially in children, characterized by a rash of small blisters.

diarrhea: abnormally frequent, loose bowel movements caused by digestion difficulties, nervous shock or tension.

dysentery: inflammation of the intestines characterized by blood and mucus in the stools and causing severe stomach cramps. Two types include amoebic dysentery (which is caused by a parasite), or bacillary dysentery (which is caused by bacteria).

ether: a colorless liquid used as an anesthetic.

immunity: the ability of an organism to resist infection, through the presence of antibodies and white blood cells.

laudanum: a solution containing morphine and prepared from opium; formerly used as a narcotic painkiller.

measles: an acute, contagious viral disease characterized by red spots on the skin, fever, cough and runny nose.

Handout 4b continued

morphine: an addictive drug made from opium and used to kill pain.

mumps: highly contagious, viral disease marked by swelling of the parotid salivary glands in the face.

pneumonia: a bacterial inflammation of one or both lungs.

tetanus: a bacterial disease of the nervous system, causing spasms of the voluntary muscles, especially the jaw. Usually occurs as a result of bacillus contamination in puncture wounds. Also called lockjaw.

typhoid fever: contagious disease spread by milk, water, or solid food contaminated by feces of typhoid victims or carriers.

typhus: name given three types of infectious diseases caused by parasitic microorganisms. The disease is spread by body lice, personal contact, or by the rat flea.

vaccine: a preparation that is administered to produce immunity from a particular disease

Information for definitions from Microsoft Encarta 95 (1994) and Oxford Dictionary and Thesaurus, Oxford University Press, New York, NY (1996).

HANDOUT 4b

CIVIL WAR MEDICAL TERM SCAVENGER HUNT

	Definition	Treatment (Then)	Treatment (Now)
1.	antibiotics		
2.	chicken pox		
3.	diarrhea		
4.	dysentery		
5.	ether		
6.	immunity		
7.	laudanum		
8.	measles		
9.	morphine		
10.	mumps		
11.	pneumonia		
12.	tetanus		
13.	typhoid fever		
14.	typhus		
15.	vaccine		

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Online Sources

The Colonel Eli Lilly Civil War Museum www.state.in.us/iwm/civilwar/index.html

Located in the base of the Soldiers and Sailors Monument on the Circle in Indianapolis, the Colonel Eli Lilly Civil War Museum offers a virtual tour on its website. Directions to the museum, volunteer information, and a number of valuable links are also included.

Incidents of Field Hospital Life with the Army of the Potomac

<http://www.swamphogs.com/ebersole.html>

This page from the Iron Brigade website provides several letters from Dr. Ebersole, a physician from the 19th Indiana of the Iron Brigade.

National Museum of Civil War Medicine

www.CivilWarMed.org

Homepage for this museum in Frederick, Maryland, which includes a museum store where student resources as well as reproductions are available for purchase.

United States Sanitary Commission

<http://www.netwalk.com/~jpr/>

Although mostly text and few graphics, this site is a plethora of information! Topics include letters, orders, newspaper ads, salaries, Sanitary Fairs, amputations, poems, Soldier Aid Society, and patterns for bandages, a hospital shirt, slippers, and drawers.

Walden Font Company

www.waldenfont.com

All graphics in these lessons are from The Civil War Press compact disk. It is available for purchase through Walden Font Company, Purveyors of Historic Fonts and Clip-Art.