Primary Sources

*500 Cases Prove Penicillin's Value*. Digital image. *Timothy Hughes Rare & Early Newspapers*.

N.p., n.d. Web. 15 Dec. 2015. <http://www.rarenewspapers.com/view/595426>. I used

this image of a newspaper clip on my page about how penicillin saves lives.

Alexander Fleming Observing Penicillin. Digital image. *Great British Innovations*. N.p., n.d.

Web. 13 Dec. 2015.

<http://www.topbritishinnovations.org/PastInnovations/Penicillin.aspx>. This source

provided me with a picture of Alexander Fleming look into a microscope and observing

penicillin in his lab in 1943. I use this image on my home page.

Assembly Line Packaging Penicillin Boxes. Digital image. Corbis Images, n.d. Web. 11 Dec.

2015. <http://www.corbisimages.com/stock-photo/rights-

managed/U720220INP/penicillin-being-mass-produced>. I added this picture of people

packing containers of penicillin into boxes to exhibit daily factory lives. This picture is

located on my mass production page.

Battlefield Medics Treating Injured Soldier. Digital image. *Jourdan's History Thoughts*. N.p.,

n.d. Web. 15 Dec. 2015. <http://jourdankadow.blogspot.com/2010/04/world-war-2-

combat-medics.html>. This source contained an image of a soldier being treated with

medicine on the battlefield. I included this image on my page about penicillin's effect on

World War II.

Coghill, Robert D. and Roy S. Koch, "Penicillin: a wartime accomplishment," Chemical

Engineering News 23. 1945. From this source, I found several different statistics about

the production, distribution, and price during 1945. This primary source is reliable

because it is a historically archived document written by people working in research labs.

Creating Penicillin Cultures. Digital image. *Penicillin Past, Present, and Future*. Imperial War

Museums, n.d. Web. 14 Dec. 2015.

<http://www.iwm.org.uk/collections/item/object/205200524>. I used a picture of a man

creating cultures of penicillin in World War II from this source. I placed this picture on

the page I discuss Pfizer.

First Page of Alexander Fleming’s Paper on Penicillin. Digital image. *Europeana Blog*. N.p., 6

Aug. 2012. Web. 15 Dec. 2015. <http://blog.europeana.eu/2012/08/a-happy-accident-

flemings-penicillin/>. I used this image of Alexander Fleming's report on penicillin on

my page about his discovery of penicillin.

Fleming, Alexander. "Nobel Prize Banquet Speech." Nobel Banquet. Stockholm. 10 Dec. 1945.

Speech. In 1945, Alexander Fleming received a Nobel Prize for his discovery of

Penicillin; two other men were also honored for their help in the discovery. Fleming’s

Nobel Laurate speech discusses his discovery in his point of view. He views his

discovery as a result of lucky circumstances and explains how he discovered penicillin.

Fleming, Florey, Chain. Digital image. NyTeknik, n.d. Web. 15 Dec. 2015.

<http://www.nyteknik.se/popular\_teknik/kaianders/article2471531.ece>. This article

provided me with a picture of Florey, Fleming, and Chain accepting their Nobel Prize in

1945. I incorporated the image onto the page about the discovery of penicillin.

"How Penicillin Was Mass Produced in WW2." YouTube, n.d. Web. 9 Dec. 2015.

<http://www.youtube.com/watch?v=UJ6KTKVxkcM>. This video explains how

penicillin was mass produced in World War II. This source is reliable because it is a copy

of an original broadcast in the 1940s.

Injecting Penicillin Into Bottles. Digital image. *The Science and Technology of World War II*.

The National Museum of World War II, n.d. Web. 27 Oct. 2015.

<http://www.learnnc.org/lp/editions/nchist-worldwar/6002>. I used an image from this source of penicillin being prepared in a lab. This image was used as my background for my website.

Moyer, Andrew J., and Robert D. Coghill. "Penicillin: X. The Effect of Phenylacetic Acid on

Penicillin Production." *Journal of Bacteriology*. U.S. National Library of Medicine, n.d.

Web. 15 Dec. 2015. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC518312/?page=1>.

This source contained images of Andrew Moyer's original report on the effects of acidic

to penicillin production. I used the first page of his report on my page about Peoria.

Oxford Research Team. Digital image. Assignment Point, n.d. Web. 12 Dec. 2015.

<http://www.assignmentpoint.com/science/medical/decision-making-process-of-liquid-

department-sterile-granulation-suite.html>. I used a group photo of Oxford researchers

from this website on my page about how the Oxford scientists helped discover penicillin.

Penicillin Production at the Royal Navy Medical School, Clevedon, Somersot, 1944. Digital

image. Imperial War Museums, n.d. Web. 12 Dec. 2015.

<http://www.iwm.org.uk/collections/item/object/205187281>. This source has a picture

that provides a glimpse into how factories would mass produce penicillin. I added this

image to my page about mass production.

Penicillin War Time Advertisement. Digital image. The National Archives Catalog, n.d. Web. 14

Dec. 2015. <https://research.archives.gov/id/515170>. I used this advertisement to add

what people thought of penicillin during World War II. The advertisement is trying to

inspire men to keep working to save the lives of others. I added this image to a slideshow

of pictures on my page about penicillin's effect of World War II.

Pfizer Soldier Advertisement. Digital image. Pfizer Plus, n.d. Web. 15 Dec. 2015.

<http://www.pfizerplus.com/si/article\_penicillin.aspx>. This source provided me with an

image of a Pfizer advertisement depicting military men and women at the center of a line

of civilians. I used this image in a slide show on my page about World War II.

Suschitzky, Wolfgang. Oxford Researchers Conversing. Digital image. National Portrait Gallery,

n.d. Web. 10 Dec. 2015. <http://www.npg.org.uk/whatson/display/photograph-of-the-

month/photograph-of-the-month-august-2012.php>. I used a picture from this source of

four members of the Oxford research team. I used this image toe insight as to what the

scientists looked like and their daily activities.

*Selman Waksman and Alexander Fleming*. Digital image. *The White Plague in the City of*

*Angels*. N.p., n.d. Web. 14 Dec. 2015. <http://scalar.usc.edu/hc/tuberculosis-

exhibit/scientific-discovery-of-streptomycin>. I used this picture of Alexander Fleming,

the discoverer of penicillin, and Selman Waksman, the discovery of Streptomyces on my

page about the effects of penicillin to medicine.

Selman Waksman Observing a Beaker. Digital image. *Waksman, Selman*. Reynolds-Finley

Historical Library, n.d. Web. 14 Dec. 2015.

<http://www.uab.edu/reynolds/histfigs/waksman>. I used a picture from this source of

Selman Waksman. I used the image to demonstrate how Waksman looks on the page

about how penicillin effected medicine.

Soldiers Treating Injured Man with Penicillin. Digital image. ACS Publications, n.d. Web. 13

Dec. 2015. <https://pubs.acs.org/cen/img/83/i25/8325penicillin\_soldier.tifc.JPG>. This

source provided me an image from the World War II battle field of an injured soldier

being treated with penicillin. I used this image on the page where I discuss how penicillin

affected World War II.

"The Influence of National Defense on the Development of the Antibiotics Industry." *Health,*

*Medicine, and American Culture, 1930-1960*. University of Pennsylvania, 22 May 2002.

Web. 27 Oct. 2015.

<http://ccat.sas.upenn.edu/goldenage/state/war/ftc/pages/sl\_war\_ftc\_46.htm>. This

source provided me with a transcript of a report written by the Federal Trade Commission

containing statistics and background information about the development of penicillin in

World War II by Florey and Chain. This sources is reliable because the website is

endorsed by a high standing university.

Women Fill Culture Glass With Penicillin. Digital image. The Guardian, n.d. Web. 15 Dec.

2015. <http://www.theguardian.com/world/gallery/2014/nov/22/the-top-20-moments-

that-shaped-the-world-in-pictures#img-2>. I used a picture of two pharmacists filling

culture flasks where penicillin mold would grow in 1943 from this source. I included it in

my page about mass production.

World War II Gonorrhea Advertisement. Digital image. *Images from the History of Medicine*.

U.S. National Library of Medicine, n.d. Web. 15 Dec. 2015.

<http://ihm.nlm.nih.gov/images/A20824>. This source provided me of an image of a

poster pasted to a mailbox about how penicillin can cure your gonorrhea within hours. I

used this image on my page about how penicillin saves lives.

Secondary Sources

*Alexander Fleming Laboratory*. Digital image. *Fleming Museum*. London Museum of Health and

Medicine, n.d. Web. 14 Dec. 2015. <http://www.medicalmuseums.org/alexander-

fleming-laboratory-museum/>. I used a picture from this site of Alexander Fleming's lab

to visualize what it would have been like when Fleming discovered penicillin. I put this

picture on my page about Alexander Fleming.

American Chemical Society International Historic Chemical Landmarks. Discovery and

Development of Penicillin. Web. 10 Oct. 2015. <http://www.acs.org/content/acs/en/

education/whatischemistry/landmarks/flemingpenicillin.html>. The American Chemical

Society provide a detailed summary of the discovery, research, production, and usage of

penicillin. The site provides information from a commemorative booklet about penicillin.

The source includes pictures of penicillin from the mid-1900s and quotes from people

who influenced the mass production and discovery of penicillin.

Archimedia. "Penicillin: The Magic Bullet." YouTube, n.d. Web. 9 Dec. 2015.

<http://www.youtube.com/watch?v=36x124crRVk>. I added this video because it helps

explain how Alexander Fleming discovered penicillin and visually makes it easier to

imagine what occurred. This is a trustworthy source because it had similar information to

evidence I found from other sources.

Bed Ridden Patient. Digital image. *Thermography NYC Blog*. N.p., 29 Aug. 2012. Web. 14 Dec.

2015. <https://thermographyforhealth.wordpress.com/2012/08/29/essential-oils-

throughout-history/>. I used this image of a bed-ridden boy being treated by nurses on

my page about how penicillin saves lives.

Berlatsky, Noah, ed. *Antibiotics*. Farmington Hills: Greenhaven, 2011. Print. I used this book to

find information about what occurred before penicillin, the discovery, penicillin in World

War II, production, and the aftermath of penicillin. This is a reliable source because it is

published work and endorsed by the Library of Congress.

"Ernst B. Chain." *Biographical*. Nobel Prize, n.d. Web. 16 Dec. 2015.

<http://www.nobelprize.org/nobel\_prizes/medicine/laureates/1945/chain-bio.html>. I

used this source to gain background information on Ernest Chain. I also got a picture of

him and used it on the page about the Oxford Scientists. This source is reliable because it

is a worldly respected organization and has non-bias information.

"Exhibit Penicillin." *1941 Visit to Peoria for Help*. Peoria Historical Society, n.d. Web. 17 Dec.

2015. <http://www.peoriahistoricalsociety.org/!/Exhibits-Penicillin1941Visit>. From this

site, I used several images about the mass production, people, advertisements, or patents

of penicillin. This source is reliable because its purpose is to inform people about the

history of Peoria and the information is similar to previously found evidence. The source

is also non bias.

Fogel, Robert. "Penicillin: The First Miracle Drug." *Fun Facts About Fungi*. Ed. Patricia Rogers.

N.p., 8 Dec. 2006. Web. 27 Oct. 2015.

<http://herbarium.usu.edu/fungi/funfacts/penicillin.htm>. I used information from this

source about the discovery of penicillin and the effects of penicillin. I also used an image

of Alexander Fleming from this source. This source is reliable because it was written by a

Nobel Prize winning historian and scientist.

Gilyeat, Dave. "Norman Heatley, the Unsung Hero Who Developed Penicillin." *BBC News*.

BBC, 20 July 2010. Web. 15 Dec. 2015.

<http://news.bbc.co.uk/local/oxford/hi/people\_and\_places/history/newsid\_8828000/8828

836.stm>. This article provided me with a video which I converted part of into an audio.

This source provided me with information about Norman Heatley's accomplishments.

This is a reliable source because it is published by a credible newspaper.

Kerbs, Brian. "The Fungus That Changed History." Washington Post, 27 Apr. 1998. Web. 16

Dec. 2015.

<http://dwb4.unl.edu/chem/chem869k/chem869klinks/www.bergen.com/healthw/antibs1

9980427.htm>. This source provided me with information about Selman Waksman, the

discoverer of another highly effective antibiotic. The information shows that penicillin

had a lasting effect in the field of medicine and the discovery of antibiotics. I also used a

quote from the article. This source is reliable because it is published by a credible source

and contains information that correlates with other reliable sources.

Mailer, John S., Jr., and Barbara Mason. "Penicillin: Medicine's Wartime Wonder Drug and Its

Production at Peoria, Illinois." *Penicillin*. Northern Illinois University, n.d. Web. 12 Oct.

2015. <http://www.lib.niu.edu/2001/iht810139.html>. I used this source to gain information about the distribution of penicillin during World War II. This is a reliable source because it is endorsed by a professional university.

Markel, Howard. "The Real Story behind Penicillin." *PBS*. NewsHour Productions LLC, 27

Sept. 2013. Web. 18 Oct. 2015. <http://www.pbs.org/newshour/rundown/the-real-story-

behind-the-worlds-first-antibiotic/>. From this source, I used an image of a young boy

being injected with penicillin. I used statistics and background information about the

discovery, development, and effectiveness of penicillin. This is a reliable source because

the work is being published by a trusted newspaper and the author is a history professor

and director of Center for the History of Medicine.

"Norman Heatley." *ScienceHeroes*. N.p., n.d. Web. 15 Dec. 2015.

<http://scienceheroes.com/index.php?option=com\_content&view=article&id=162&Itemi

d=161>. I used this site to gain information about Norman Heatley, a crucial member of

the Oxford team that helped develop way mass produce purified penicillin. This source

was reliable because the information is accurate and is not bias.

Penicillin Chemical Composition. Digital image. Wikipedia, n.d. Web. 10 Dec. 2015.

<https://en.wikipedia.org/wiki/File:Penicillin-core.png>. The source provided me with an

image of the chemical composition of penicillin, showing what molecules penicillin is

made up of. I put this picture on the penicillin discovery page.

Penicillin Colony Effect on Bacteria. Digital image. *Antimicrobial Drugs*. N.p., n.d. Web. 10

Dec. 2015. <http://classes.midlandstech.edu/carterp/Courses/bio225/chap20/lecture1.htm>.

The website shows an image of how a colony of penicillin would inhibit the growth of

bacteria. I added this image to my page about the discovery of penicillin.

"Penicillin: Opening the Era of Antibiotics." *Agricultural Research Service*. United States

Department of Agriculture, 2 Mar. 2014. Web. 11 Oct. 2015.

<http://www.ars.usda.gov/Main/docs.htm?docid=12764>. I used this source to find information about the prices of penicillin and the process of mass producing penicillin. I also used a picture of the Oxford Group sitting at a table and discussing on my home page. I also used a picture of Andrew Moyer observing samples of penicillin on my page about Peoria. This source was reliable because the source is a government funded organization.

Ross-Flanigan, Nancy. "Penicillin." *Gale Encyclopedia of Medicine*. 3rd ed. N.p.: Thomson

Gale, 2006. *Encyclopedia.com*. Web. 8 Oct. 2015. The encyclopedia provided

information about the discovery, developments, what penicillin is and penicillin statistics.

This sources is reliable because it is a published work by a well-respected publisher.

"Sir Howard Florey." *Biographical*. Nobel Prize, n.d. Web. 15 Dec. 2015.

<http://www.nobelprize.org/nobel\_prizes/medicine/laureates/1945/florey-bio.html>. . I

used this source to gain background information on Howard Florey. I also got a picture of

him and used it on the page about the Oxford Scientists. This source is reliable because it

is a worldly respected organization and has non-bias information.

Steinert, David. "The History of WWII Medicine." *World War II Combat Medic*. N.p., 5 Apr.

2002. Web. 11 Oct. 2015. <http://mtaofnj.org/content/WWII%20Combat%20Medic%20-

%20Dave%20Steinert/wwii.htm#The%20Use%20of%20Penicillin%20in%20World%20

War%20II>. This website discusses the discovery and usages of a variety of medicines

during World War II. The website has a detailed section on how penicillin was mass

produced and funded during 1941. The site provides pictures from World War II relating

penicillin and how penicillin mass production spread to benefit others during the war.

St Mary's Hospital Clarence Memorial Wing. Digital image. *Buildington*. N.p., n.d. Web. 14

Dec. 2015.

<http://www.buildington.co.uk/buildings/london\_w2/praed\_street/st\_marys\_hospital\_clar

ence\_memorial\_wing/id/1843>. I used this image of St. Mary's Hospital in London on

my page about Alexander Fleming. He discovered penicillin in his research lab here.

"The Rescue of Penicillin." *Agricultural Research Service*. United States Department of

Agriculture, 6 June 2008. Web. 15 Oct. 2015.

<http://www.ars.usda.gov/is/timeline/penicillin.htm>. I used a picture from this source of

Andrew Moyer observing cultures in beakers. This picture was used in my section about

Peoria lab research.

Two Men Discussing Mass Production. Digital image. *The Story of Penicillin*. Kew Royal

Botanic Gardens, n.d. Web. 12 Dec. 2015. <http://www.kew.org/discover/blogs/library-

art-and-archives/story-penicillin>. From this source, I used a photograph two employee

discussing the mass production of Penicillin near a machine. I used this picture on my

home screen.

"World War II: An Overview." *Scholastic Teachers*. Scholastic Inc, n.d. Web. 16 Dec. 2015.

<http://www.scholastic.com/teachers/article/world-war-ii-overview>. This website

provided me a short synopsis of what occurred in World War II. This is a reliable source

because it is trusted by teachers to provide accurate information and included information

that corroborated previous research.