



Heroes of Progress, Pt. 28: Lucy Wills

Lesson Overview

Featured article: [Heroes of Progress, Pt. 28: Lucy Wills](#) by Alexander C. R. Hammond.

In this lesson, students will learn about Lucy Wills, a pioneering physician-researcher who discovered the link between inadequate nutrition and anemia in pregnant women. Over the past 80 years, Wills's seminal work has saved millions of lives and improved prenatal care worldwide.



Warm-Up

Lucy Wills was a tireless researcher who sought to improve the lives of expectant mothers and young children. Partly due to her groundbreaking work, the number of mothers and children who died during and after childbirth decreased rapidly in every country during the 20th century.

Child mortality is the share of children (born alive) who die before reaching their fifth birthday. It is expressed as a percentage of total births. For example, the child mortality rate was 0.63 percent in the United States in 2021. In other words, approximately 6 of 1,000 babies and young children died before turning five years old in the United States in 2021.

Every child's death is a tragedy. We should all do what we can to solve this problem. Fortunately, significant progress has been made over the past 100 years. Child mortality continues to drop year after year.

How fast did the decline in child mortality progress since 1900? Use the charts on [Our World in Data](#) to find the following data:

| Year | Global Child Mortality Rate |
|------|-----------------------------|
| 1900 | |
| 1950 | |
| 2000 | |
| 2017 | |

Despite this achievement, 15,000 children under five years old still die every day. What are children dying from, and what can we do about it?

Work with a partner. See the [Our World in Data](#) article and then record the information in the two left columns below.

- Top five causes of childhood death
- Number of deaths in 2017

Collaborate and use your background knowledge. Brainstorm possible interventions and/or solutions to reduce the number of deaths. Write your ideas in the right column.

| | Cause of Childhood Death | Number of Deaths in 2017 | Possible Interventions and/or Solutions to Reduce the No. of Deaths |
|---|--------------------------|--------------------------|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

Questions for Reading, Writing, and Discussion

Read the article, and then answer the following questions:

- What were some discriminatory practices against women that Wills encountered as she pursued her scientific studies?
- What was the “simple but great observation” that Wills made concerning yeast extract?
- Make connections. How were the Industrial Revolution, mass production, and a multinational corporation connected to Wills’s breakthrough treatment for anemic pregnant women?
- Besides preventing anemia in pregnant women, what are some other benefits of folic acid for mothers and children?

Extension Activity/Homework

• Read and Respond to a Primary Source

First, read [Wills’s obituary](#) in the May 30, 1964, edition of the *British Medical Journal*. It includes this praise, “Her generosity and magnanimity, combined with outstanding ability and resolution, made friends of all who ever worked with her and found her worthy of profound respect and deep affection.”

Wills’s obituary also says, “At this time [in the 1920s] she was also giving voluntary service to the Royal Free Hospital, undertaking biomedical research in the maternity wards.”

Opportunities for women to do medical research were limited in the early 20th century. Evidently, Wills was working as a researcher without pay, even though she was a licensed medical doctor in her late 30s at the time. Later, she became more prominent and held paid positions at various institutions.

Think about a goal you want to reach over the next two to three years. It may be passing a difficult class, getting a better-paid job, winning a championship, or getting into your dream college. Imagine yourself achieving that goal.

With that image in your mind's eye, answer these questions in a paragraph of five to seven sentences:

- What is one goal you want to achieve over the next two to three years?
- What are some of the obstacles you may encounter before you reach that goal?
- What sacrifices will you need to make to achieve that dream?

This type of thought experiment is an ancient practice called *premeditatio malorum* (premeditation of evils). It's one way to be better prepared for the challenges that will come your way.

• Interview an Elder

During World War II, the Germans bombed Wills's research laboratory. After the war, [Wills wrote](#) about the attack in an academic journal article:

An experiment was started at the end of 1943 planned to show the effect on the haemoglobin level and on the general health of the pregnant woman, not only of the improved rations but also of the routine administration of iron. . . . Unfortunately, a flying bomb incident interrupted the work, but though the actual number of observations were not as large as expected, they were large enough for statistical analysis.

Using the phrase "flying bomb incident" to refer to a Nazi missile attack on her research lab shows Wills's understated wit, strength, and determination. She was a fiercely independent and resourceful woman who persevered despite setbacks.

Successful people like Lucy Wills have character traits we can emulate and use to guide our lives.

Choose an older person you know to interview. Your interviewee could be a parent, grandparent, neighbor, coach, boss, teacher, or family friend. The person must be at least 20 years older than you.

Ask the person if they are willing to be interviewed. Explain that you will take 10 to 20 minutes of their time. Below are some sample questions to get you started on your interview. Please share these questions with the interviewee beforehand.

Sample interview questions:

- Please tell me a bit about your story.
- What have been some of the biggest obstacles you have faced in life?
- How did you overcome these obstacles?
- What are your sources of strength when faced with challenges? For example, family, religion, friends, or philosophy?
- What advice do you have for me when I encounter setbacks?

Of course, you may ask other questions to help you understand this person's sources of strength.

After the interview, write a 500-word essay. Your essay must include the following:

- Demographic information about the interviewee (age, occupation, etc.)
- Three obstacles this person has faced in their life
- Their sources of strength when faced with challenges
- Advice to you on how to overcome setbacks

You must write in complete sentences and cohesive paragraphs. Include a topic sentence in each paragraph. Be creative and use your own voice. What surprised you about this debate?