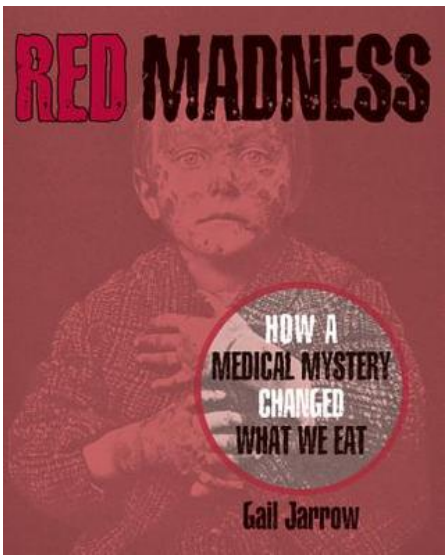

Red Madness: How a Medical Mystery Changed What We Eat

Gail Jarrow

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One hundred years ago, a mysterious and alarming illness spread across America's South, striking tens of thousands of victims. No one knew what caused it or how to treat it. People were left weak, disfigured, insane, and in some cases, dead. Award-winning science and history writer Gail Jarrow tracks this disease, commonly known as pellagra, and highlights how doctors, scientists, and public health officials finally defeated it. Illustrated with 100 archival photographs, *Red Madness* includes stories about real-life pellagra victims and accounts of scientific investigations. It concludes with a glossary, timeline, further resources, author's note, bibliography, and index.

Red Madness: How a Medical Mystery Changed What We Eat Details

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From Reader Review Red Madness: How a Medical Mystery Changed What We Eat for online ebook

Yapha says

I do love a good medical mystery! The disease known as Pellagra was characterized by a rash, diarrhea, and then going crazy right before one died from it. Not fun at all. Prevalent in southern Europe at the end of the 1800s, doctors were surprised to find it growing stronger in the United States in the early 1900s. Originally thought to be caused by toxins in moldy corn, this book chronicles the variety of theories and experiments that lead to the discovery of a cause and and then a cure for this devastating disease. A fascinating read for grades 5 & up.

Sesana says

Are you familiar with pellagra? Unless you're a history buff (or, maybe, a fan of Good Eats, which mentioned it in passing on one episode) you've probably never even heard of it before. And yet, as recently as a hundred years ago, pellagra was dangerously widespread, the fourth leading cause of death in some Southern states, and there was no medical consensus of how to cure the disease, how to treat it, or even what caused it. Mold? Bacteria? Poor hygiene? Actually, pellagra is a disease of malnutrition, caused by a diet that's heavy on corn products and fat but has little protein and vegetables. Hence why it was so common in the South, a region that still loves its cornmeal. Pellagra is the reason for our enriched bread, which is why a disease that was so common as little as 80 years ago is virtually unheard of in modern America.

I like a good medical mystery. Jarrow is very careful here, avoiding tilting her hand any earlier than necessary. She knows exactly what caused pellagra, of course, but she allows the science to unfold exactly as it would have, without stepping in to say, basically, "People thought this, wasn't that dumb?" A totally uninformed reader would know no more about the disease while reading than had already been uncovered at that point in the chronology. Not every medical mystery can be written like this, but pellagra is obscure enough to work, and it makes reading about it that much more compelling.

For me, one of the most fascinating things was just how long it took to wipe out the disease, even after it was fully explained and a cure was common knowledge. There was a lot of pushback from Southern doctors and politicians. How dare those damn Yankees paint the South as a land of famine and plague! Then, too, changing your diet is often easier said than done, especially when the solution is so much more expensive than the previous diet. Hence enriched bread, as cheap as unenriched (and, in some states, legally required) and a surefire preventative to a horrible and simple disease.

At certain points, Jarrow pauses the narrative to offer very short case studies. Just a few paragraphs each, these brief passages put a human face on the disease: a woman so distraught at being diagnosed that she killed herself, a mother who lost her mind in the late stages of the illness, a man who cured himself by changing his own diet. Combined with numerous pictures of people suffering from the disease, these passages do more to make the pellagra understandable to the target audience of the book than statistics and a list of symptoms could.

This is a good example of the narrative nonfiction that's becoming more common in YA: well-researched, heavily illustrated, and with a narrow historical focus. With a book like this, you can learn a lot about a little in just 150 pages. The cover isn't particularly eye-catching, but the title is interesting enough to get a bit of attention on its own. The writing strikes a good tone for YA nonfiction: informal, engaging, but avoiding

talking down to the reader. So it's fun to read, and you'll learn something. Not bad.

Joan says

I've read a large number of books tracing the history of the investigation and resultant cure of a number of diseases. Usually I find them fascinating. I had to force myself to keep reading this title. It is always essential to know what to leave out. While I think Jarrow was trying to show the human tragedy, she included so many cases of pellagrins that it was overwhelming. She also showed every single step that the investigators took, including many wrong paths. This book would be excellent in med school to show students how and why investigations with the scientific method were and are essential. But to expect the general public to read this is not all that reasonable. It could have been half the size and given the same basic information. Finally, I'm not sure why but there was no excitement in this book. Normally when reading such books, the excitement and desperation of the investigators shows clearly. Somehow it didn't in this book, even with quotes from primary sources that show that the main investigator was indeed very proud of his work. Again I think the overwhelming number of examples caused this lack of excitement. While the author clearly did extensive research and should be praised for doing an incredibly thorough job, I think this would be better marketed to premed and science students rather than high school students.

Jennifer Siddiqui says

Very interesting story about how peoples lack of proper nutrition can cause major heath problems. Pellagra is a disease that spread across the South one hundred years ago killing thousands especially poor people who could not afford to pay for foods containing niacin. The illness caused victims to become disfigured, weak, and lose their sanity. Most people died unless they were given proper nutrition before it was too late.

David says

Red Madness: How a Medical Mystery Changed What We Eat by Gail Jarrow tracks the once common disease pellagra, and highlights how doctors, scientists, and public health oficials finally defeated it. Illustrated with one hundred archival photographs, Red Madness includes stories about real-life pellagra victims and accounts of scientific investigations. It concludes with a glossary, timeline, further resources, author’s note, bibliography, and index.

Red Madness is a medical mystery book, examining how doctors and researchers worked to discover what caused pellagra and how to cure and prevent it. The illness presents as red thick scaly rash, but rapidly progresses, causing diarrhea, dementia, and eventually ended in death. The story is presented chronologically, so that the reader finds out information just as doctors and researchers did. Solving this puzzle in a time when biology was observational was difficult. The powerful photographs, showing weak and disfigured victims, will shock and attract those readers how are drawn to some grossness. Case studies are interspersed through the book, giving descriptions of victims, some of which died.

Pellagra is discovered to be a disease of malnutrition, caused by a diet that's heavy on corn products and fat but has little protein or vegetables. It was common in poor people, especially in the American South. This brought out a social, political side to curing the disease, as politicians and many Southerners felt their region was being attacked and refused to believe the doctors and researchers who were trying to prevent the disease.

It took World War II to make the government mandate all bread be enriched with niacin, leading to an end to the disease in the US.

This is a well researched book, yet it has some problems. While the case studies are interesting, there's a bit too much repetition in them. The layout could have been better. A Red background on some pages made some text hard to read. The black and white photos may not attract today's young readrs. I do think older readers, and those especially interested in the scientific method, or pre-med students, will find this book useful and interesting. 3.5 stars.

For ages 11 & up, non-fiction, disease, Medicine, epidemiology, scientific method, YA, adult, premed, diet, & fans of Gail Jarrow.

Jamie says

This book was a true page turner. It would be a great book talk for middle schoolers who aren't likely to pick it up on their own because
1. Its super gross.
2. Its a disease you've never heard of, but you WILL find yourself wondering if you can "catch it."
3. Pictures add to the grossness.
4. It's fun to try to figure out the mystery,
5. it's super gross!! One of the investigators ate a pill made from poop! So gross!

Jenny says

It's an interesting topic, but it was perhaps a bit too long. I just wanted to skip to the end to find out what pellagra really was!

Also, design is so important in the readability of the text. The typography and layout left a lot to be desired.

Barb Middleton says

Here's a nonfiction book that not only shows the scientific method, but describes the pellegra mystery, a disease that killed 100,000 people and afflicted over 3 million in America during the early 1900s. Today, doctors don't see cases of pellegra. The author shows how early researchers and doctors studied the disease and missed details that led others astray in the fight to find a cure. When tests or experiments were conducted, experts analyzed the results by either ignoring evidence that contradicted their theories or not paying close enough attention to the details. Even though the disease doesn't exist today in the United States, it will make readers think of the contradictory information in the media covering worldwide epidemics, such as Ebola, as experts struggle to find cures when faced with diseases.

The first part of the book shows the disease and the different theories that materialized from doctors studying it in certain populations. I did get a bit confused at one part and thought some facts were being restated, but it wasn't until later that I realized the author was showing the Thompson-McFadden Commission came up with the infectious theory and agreed with it. Many of the different hypotheses repeat others, but they were building on evidence and debunking other theories. I just thought it could have been written more clearly.

There are more than 30 vignettes that describe the suffering and horrible death of the victims. Many became suicidal or ended in insane asylums because the disease made them go mad. I felt bludgeoned by these one-paragraphs on pellegrin cases at the start. I can see many liking these individual accounts because it adds a personal touch, but it was too repetitive for me. I started to skip some because they sounded alike. It isn't until Goldberger enters the foray of finding a cure that I was able to start reading them again. The later vignettes begin to reflect the changes in doctors treatments and possible cures to the disease.

Goldberger realized that the pellegra mystery was intertwined with the South's economic and social system that became prevalent after the Civil War. The South relied on cotton that displaced farm crops. The result was that people were not getting balanced diets and most of the sufferers of pellegra lived in the South. Unfortunately, media was used in a way to not only tell people the cause of pellegra, but to put down Southerners as well for their diets and crop system. This resulted in people and doctors and politicians not listening to the facts and more people dying even after a cure was found.

This frustrated Goldberger so much that he performed some extreme and gross experiments to prove that pellegra was based on diet and not a contagious disease. Goldberger, along with his wife and other doctors conducted an experiment where they made a pill using the feces of infected patients. Can you imagine? Here dear, eat your breakfast and don't forget to take your poop pill. Even when they didn't get sick, they couldn't convince the skeptics. Some of the photos might disturb readers for they show adults and children covered in puffy, scaly skin that sometimes turns black from pellegra.

The first case of pellegra was reported in 1902 and a cure was discovered in the late 1930s; however, it wasn't until the 1940s that it disappeared when the government ordered a wartime program to address the issue. I won't tell you the cure that was found because part of the fun reading this book is how the author reveals clues that lead to the ultimate answer. The well-done notes at the back are for further reading and the layout of the book uses red inserts that give facts about pellegra and primary sources. The end has a question and answer that filled in the blanks for me. The timeline is helpful as well.

This deficiency disease does not exist today but it does in other malnourished countries. We take our rich way of life for granted and this glimpse into a past with poor immigrants is not so long ago. I know that when I go back to see my husband's grandma who is 100 years old, I'm going to ask her about this disease and find out what she has to say.

Jane Drabkin says

A real life medical mystery that keeps the reader turning the page to see how this medical mystery was solved. Doctors in the United States first realized that they they had a red rash that was killing people and quickly becoming an epidemic in 1902. How they worked to solve the mystery of the red rash shows scientists and doctors at work, going down dead end trails, starting over, sometimes following the science and other times refusing to accept what the studies actually showed. The story resonates with issues that still face us today--sectional pride, superstition, and an unwillingness to often take the steps necessary to solve problems. I couldn't put this down. I just had to know what the disease was and how it was finally eliminated.

Kathy Ellison says

Didn't really know much about this medical mystery in history. Hooray for the food scientists and doctors

out there. Somewhat graphic photos tell the story of pellagra and the people who suffered with it.

Edwina Callan says

A non-fiction medical mystery written in the form of a fast paced thriller.
If you're in the mood for a fascinating history lesson then by all means, pick up this book ... you won't be able to put it down.
Highly recommended to everyone.

Carol Baldwin says

How many of you have heard of pellagra? Before reading Red Madness, I was unfamiliar with the disease. But reading it resolved a personal mystery for my husband's 85-year-old uncle. He finished the book and said, "Now I know what I had as a child."

This disease which produces a horrible skin rash, leads to severe intestinal problems, causes neurological problems, and often leads to death, no longer afflicts wide portions of our population--the way it did during the first half of the twentieth century. Pellagra has been eradicated from most developed countries because of the tireless work of one physician: Joseph Goldberger. Red Madness by award winning author Gail Jarrow, describes how this medical mystery was solved.

Written with clear language accessible to readers from age ten through adult, Gail Jarrow chronicles the history, myths, and treatments associated with pellagra. Dr. Goldberger's tireless efforts to determine the primary cause of pellagra included hosting "filth parties." In gruesome detail, Gail describes how Goldberger tried infecting himself with pellagra in order to prove that it was not contagious or a result of infection.

http://www.loc.gov/pictures/item/ncl2...
"This Oklahoma sharecropper and his family pick cotton in 1916.
The older two children--ages six and five--together picked twenty-five pounds of cotton a day.
Goldberger tried to communicate his message about diet to farmers and mill workers,
two groups that suffered from pellagra." (p.100)
Since the disease appeared most often in poor households where diets were limited to 3-M's: meal (cornmeal baked into bread), meat (fatback, form the fatty layer on a pigs back) and molasses (syrup), Goldberger was convinced that pellagra was probably caused by a diet deficiency. But how could he prove that? Goldberger spent eleven years, traveling frequently in the South where the disease was most common, and performed experiment after experiment.

In 1923 his efforts finally paid off. Experimenting with dogs who were experiencing pellagra symptoms, Goldberger fed them brewer's yeast (something missing from most pellagrins' diets). Quickly, the dogs recovered. In 1926 the Mississippi River flooded. 700,000 people lost their homes and 45-50,000 developed pellagra. The Red Cross took Goldberger's recommendation to add yeast to the impoverished people's diet. Within two months people were cured.

After Goldberger died in 1928, other scientists continued searching for the vitamin that would prevent pellagra. Eventually, Conrad Elvehjem discovered that nicotinic acid (now known as niacin) was indeed, the pellagra-preventing vitamin. Ten years later bakers began adding niacin, along with other Vitamin B

complex vitamins to bread. That was the beginning of the enriched bread we enjoy today.

According to a recent Writer's Digest article, "Straight Up Nonfiction with a Twist," one way authors enhance text is by using sidebars for supplemental material. Gail and her team at Calkins Creek did an excellent job of interweaving newspaper headlines, facts, and photos such as this one into the body of the text.

"Some doctors referred to the butterfly-shaped rash on the
girls neck as the Collar of Casal, named after
the first doctor to write about pellagra." (p. 83)
In addition, dozens of case histories of individuals whose lives were torn apart by the disease, are sprinkled throughout the book.

In a recent SCBWI, Bulletin article, "What Teachers Want from Nonfiction Authors," Alexis O'Neill said that teachers wanted authors to share about their research and writing process. Accordingly, I asked Gail a few questions about her process.

Carol: What was it like for you to see the images of people afflicted with pellagra and pulling them together for this book?

Gail: Part of me approached this topic in a clinical manner. I have a background in biology, and I was fascinated to learn how a vitamin deficiency could lead to such dramatic physical symptoms. But when I read the accounts of patients' suffering written by their doctors, I felt upset knowing this disease was so easy to prevent. Even after pellagra's cause and cure were discovered—and publicized—people continued to fall ill and die. Many victims lacked the resources to eat properly or didn't realize how diet affected their bodies. Tragically, other deaths occurred because some physicians refused to accept that pellagra was a diet deficiency disease.

Carol: Was any part of this writing/publishing journey more difficult than another?

Gail: The hardest part—and this is always the case when I write a non-fiction book—is locating and obtaining the primary documents. Those were key because secondary sources were contradictory about the early-20th-century understanding of pellagra, Joseph Goldberger and his research, and other details included in my book. Whenever possible, I go back to the original sources and do not necessarily trust what I read elsewhere. Too many times, I've found errors in the secondary sources.

For more information on the nitty gritty behind writing this book, see the informative Author's Note at the end of the book and Gail's interview in the School Library Journal. Teachers, make sure you utilize the educational activities which Gail has assembled. With such a detailed analysis of the disease, what caused it, and the stigmas associated with the disease, Red Madness will be an excellent supplement to history, sociology, and science lesson plans.

Read this book and maybe you'll discover answers to the mystery disease which left its mark on someone you know.

Angie says

Have you ever heard of pellagra? In the early 1900s, it was one of the leading causes of death in the Southern United States and a medical mystery that took decades to solve. What caused people to get pellagra? Why

was it concentrated in the South? How did the doctors find a cure? Gail Jarrow’s Red Madness explores the beginnings of pellagra in the United States and how doctors found the cure.

Pellagra was common in Europe for hundreds of years before appearing in the United States in 1902. Pellagra caused the four “D”s: dermatitis, diarrhea, dementia and death. It killed between 10-60% of the people affected. Before the disease was eradicated in the 1940s, it had killed 100,000 people and afflicted nearly three million. The majority of people in Europe and the United States believed pellagra was caused by eating bad corn products. Because of their limited diet, most of those impacted in the United States were poor and lived in the South.

Red Madness shows how the United States Public Health Service took up the challenge of pellagra. Teams of doctors experimented and tested for years to find a cause for the disease. They looked at multiple causes: corn, microbes, diet, insects, and even sanitary conditions. Nothing seemed to fit. It wasn't until Dr. Joseph Goldberger took the lead on the investigation that real progress was made. Goldberger discovered that patients improved when their diet included meat, milk and vegetables.

Even though the cure was proven and widely known, it took years for it to be fully accepted. In 1937, researchers identified the vitamin that prevented pellagra: nicotinic acid, now called niacin. This allowed the Public Health Service to create a solution to the pellagra problem. By 1941, three-quarters of all white bread in the United States was enriched with iron, thiamin, riboflavin and niacin. Pellagra was now on its way out.

Gail Jarrow’s compelling story will fascinate and intrigue readers whether or not they are fans of nonfiction or medical mysteries. She introduces each doctor responsible for the major breakthroughs in the investigation and includes individual case studies throughout the book to make the disease more personal. The many photographs illustrate just how debilitating and indiscriminate this disease was. It is a truly fascinating story for readers of all ages.

Children’s nonfiction is some of the best nonfiction today. The narrative style draws readers in and the addition of illustrations and images makes the information come alive. Most authors include extensive bibliographies so readers can find more information on the subject. If you haven’t checked out the selection in the children’s section, you should. You won’t be disappointed.

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bjneary says

This book was in @tavia_clark's resources for monthly #YearofYA chat Thursday 1/26 st 8PM on STEM & YA Lit and as a nonfiction book, it was mesmerizing as the medical mystery of the Pellagra disease was discovered in the late 1890s and sickened and killed many in the United States. Along with the narrative the photographs were so compelling and heartbreaking. There were many doctors and scientists who worked so hard to find the cause, research, and investigate possible cures and hopeful eradication of this mystery illness. I was in awe of Dr. Goldberger but also his wife, Mary whom he corresponded with as well as consulted his deepest thoughts about his work. And it was his wife, Mary as the only female to participate in the "contagion test." Dr. Goldberger, his wife, and other doctors, friends and colleagues infected themselves with pellagra in different ways. What the doctors, the medical community and then the world learned from this most awful scourge was the knowledge of the extreme importance of vitamins in the human diet as well as a nutritious diet. Loved this medical detective mystery by Gail Jarrow!

Edward Sullivan says

A well-researched, compellingly told medical mystery about the baffling epidemic outbreaks of pellagra that plagued the U.S. in early 20th century. Grim photographs of victims and graphic descriptions of symptoms are great booktalk material.
