

COLD OPEN

[ARCHIVAL AUDIO from MILK FOR THE CITY (1:30)]
 "This is the story of a need. A
 city's need for an essential food
 - milk.

MUSIC BED IN:

PHI KASEM-BEG
 The story of milk began
 tragically. In the late 19th
 century in Rochester, New York,
 infants were dying at alarming
 rates. Public health officials in
 the city were praised at first for
 their efforts to save children.

CUT TO:

VOICE ACTOR
*"May God bless you. I have lost
 three children with the summer
 complaint, and I think the milk
 and the book kept my fourth baby."*

HOLLY
 But making milk accessible and
 safe soon became about more than
 just improving public health.

INTRO

PHI KASEM-BEG
 This is Hear UR: Rochester Retold,
 episode 1: Why Milk?

I'm Phi Kasem-Beg.

HOLLY
 And I'm Holly Rowland.

PHI
 And we're here to talk about the
 Milk Commission and its role in
 the safety of milk consumption in
 Rochester, New York.

SCENE 1

MUSIC BED OUT.

PHI

To understand the milk question, we have to explain what milk was like around the country over a century ago. The milk that people were buying was very dangerous.

CUT TO:

MELANIE DUPUIS

There was very little in the way of fresh milk consumption, unless you lived within very close proximity of a cow and people who lived on the farm. And of course there were many more, much larger percentage of people who lived on farms in the 19th early 20th century. It was only until around the 19-teens and twenties that it became even half and half rural.

PHI

That is Melanie DuPuis, an Environmental Studies and Science professor at Pace University and the author of the book *Nature's Perfect Food: How milk became America's drink*.

As people started moving into cities, many reformers wanted to cleanse society from the dirty urban decline. This came in the way of trying to perfect humans in every way possible.

Milk dealers were quick to seize this opportunity to claim milk as the perfect food.

CUT TO:

MELANIE DUPUIS

They present this milk as lovely country milk that they're bringing in from the beautiful countryside.

PHI

According to a milk inspector in the late 19th century, anyone opening a milk can would be welcomed by quote "a sickly offensive order, we ought as well call the odor putrid meat... The milk is not sour; it has a slimy alkaline taste. Putrification has commenced in it. It is putrid and poisonous... milk is brought to this city for sale during hot weather, confined in closed cans, and exposed to noonday suns, reeking hot, with animal heat not removed... yet it is used under the mistaken notion that because it is not sour, it is not unwholesome..." End quote.

MUSIC BED IN:

HOLLY

This putrid milk was caused by farmers milking sickly cows in dirty barns and transporting them slowly and without icing. Harmful, disease carrying bacteria was introduced in almost every step of the milk making process in the beginning of milk consumption.

PHI

To make matters worse, a common method of buying milk for the lower class was dipped milk from a local Rochester store. This is described in an article written by John Ralston Williams, the Secretary Milk Commissioner of the Medical Society of the County of Monroe.

CUT TO:

VOICE ACTOR

"The store keeper took from a convenient shelf a dirty, unwashed bottle, which beyond all doubt had been returned by some previous customer who had neglected to clean it. After giving it a hasty rinsing in cold tap water, he

proceeded to fill it from the open can. In doing this a considerable amount of milk streamed down over the side of the bottle and back into the can."

PHI

This kind of behavior was very common because it was cheap. Anyone in the milk business wasn't going to use cleaner practices without being forced to.

HOLLY

To make matters worse, at this time in history, the role of middle class women in society was also in flux. This caused a lot of uncertainty about what was best for infants.

MUSIC BED OUT.

CUT TO:

MELANIE DUPUIS

The people who started drinking milk were babies. And a lot of that had to do with women, either unable or unwilling to breastfeed. There were always sort of, for medical reasons, people who could not. There began to be a demand for cow's milk to feed infants. Husbands didn't want them breastfeeding, corsets that made it hard for them to be able to breastfeed, and you know, a certain amount of immodesty about breastfeeding and during the Victorian era, there was a lot of concern about immodesty. They had to work on their homes, they had to go other places, they were very busy. They did not have the kind of time to spend breastfeeding their children.

PHI

Also, in this idealized society, women were thought of as unable to meet the physical demands of

breastfeeding. As early as the 1880s, the Nestle corporation has been advertising their milk to mothers as a substitute for breastmilk, and today the corporation is infamous for their unsustainable practices.

HOLLY

As families started moving more into cities, though, women lost the sense of community and support that they had in the countryside. They no longer had older generations teaching them how to breastfeed and what to do if it goes wrong. So using cow's milk just became the best alternative.

SCENE 2

PHI

Infants experienced a lot of issues in the late 19th century, and it was especially bad in the summer months. Around Rochester, parents and doctors called most infant distress "summer complaints." This consisted of digestive and bowel problems and diarrhea. It wasn't clear right away what the source of this distress was though. It was a gamble if your children would live past infancy.

In Rochester, over half of the total deaths were children under five.

HOLLY

This rate of infant mortality did not go unnoticed either.

MUSIC BED IN:

PHI

One of the first major people to intervene was George Goler, the Director of the Board of Health in

Rochester in the late 19th century. He gathered data on how many children were dying and determined bad milk was a major cause.

Because of this, he attempted to educate women on how to take care of their babies, especially in hot weather. His main point usually being to avoid feeding children cow's milk.

HOLLY

Interestingly, mothers still chose to give their babies cow's milk anyway. Because of this, Goler became one of the first in the country to advocate for milk stations in a major city. These stations would only sell clean, pasteurized milk.

In 1897, he pioneered the first milk station in Monroe county which was positioned in a vacant store. There, the nurse or nurse's assistant would dilute and sweeten the milk before bottling it. Later that summer, he opened another station at a local police precinct. Both stations ran for the duration of the summer.

This was a huge success for public health officials at the time. Mothers could buy clean milk at an affordable price.

PHI

At this point, health officials like Goler knew they needed to create some sort of certified milk to ensure the people of Rochester were safe.

With the acceptance of germ theory, they figured out that cow's milk was a carrier for bovine tuberculosis which infants are especially susceptible to.

After this was more understood, they needed a way to remove the bacteria from milk before allowing people to drink it.

At first, people were fine with simply testing cows for tuberculosis as a way to eliminate that from spreading to humans. Eventually, bacteria scorecards were created in Rochester to grade samples of milk from different farms. However, testing cows for tuberculosis and milk for bacteria wasn't preventing milk from causing disease and infant death.

MUSIC BED OUT.

It was realized that the journey from farm to table was proving to be dangerous.

This is when pasteurization became important for milk and its consumers. However, not many farmers had the ability to pay for pasteurization. Some people even argued against it because it made milk less natural.

CUT TO:

[ARCHIVAL AUDIO - BOB CONSIDINE, THE NEW STORY OF MILK]

"The Pasteurization process - in which the milk is passed in a continuous flow to a series of steel plates and heated to 161 degrees for only 15 seconds. This rapid heating assures purity without changing or affecting the flavor of the milk."

PHI

That is Bob Considine, an American journalist, speaking in the promotional film The New Story of Milk. This new certified milk was too expensive for a good portion of families at the time. Many

mothers would go looking for uncertified milk that was much cheaper. This undermined a lot of the progress Goler was trying to make. However, in order for farmers to make any money off of pasteurized milk, they had to raise the prices.

HOLLY

How did Goler manage to provide pasteurized milk in his milk stations then?

PHI

At the start, Goler worked with a farm and set up a temporary milk room. A nurse would be stationed there and was in charge of treating the milk and bottling it using sanitized equipment. The milk would be placed in ice and then brought to the city for sale.

This idyllic situation wasn't the truth for many farmers at first though. Before milk started becoming certified, barns were not kept sanitary and milking utensils were rarely cleaned. Here's a letter to a farmer with a description of his barn near Rochester as inspected by a local health official.

CUT TO:

VOICE ACTOR

"Dear Sir., An inspection of your cow stables and surroundings shows that you are violating ordinances of the Health Board in keeping cows that are for the most part confined in stables; in keeping four cows upon a lot when you have room but for one cow; in keeping your milk cans and their covers dirty; providing insufficient stable room and ventilation for your cattle and in maintaining an open manure pit.

You will be required to comply with the provisions of these ordinances in ten days from the date of this notice, or the attorney will be directed to proceed against you. Yours respectfully, Health Officer."

MUSIC BED IN:

PHI

This type of letter was very common for farmers to receive as they were trying to sell milk to the city. Before pasteurization was widespread and controlled by bigger entities, keeping the cows and barns clean was one of the best methods of preventing the spread of disease.

In order to regulate barns to be kept clean and neat, Rochester formed one of the first Milk Commissions in the country.

Commission inspectors would go to farms with a grading sheet. They would survey what the buildings were made of, the layout of the area cows were kept, how sewage was disposed of, and what the cows were fed. For the farms that had milkrooms to bottle it up, the inspectors would go through those areas as well.

They would make sure the milkmen were wearing clean, white clothing and using properly sanitized equipment. If a farm received a high enough score, their milk would become certified and legal to sell in the city of Rochester.

HOLLY

These rules took years to perfect and actually follow. However, it still seems as though these strict regulations were only required for the few farms the milk commission

seemed to favor.

MUSIC BED OUT.

At this point, Goler had removed himself from the certified milk movement. He wrote many letters to John Ralston Williams, the milk commissioner we referenced earlier. One from 1911 reads:

CUT TO:

VOICE ACTOR

"I have visited a number of milk farms recently where the conditions were dirty in the extreme; one case so dirty the man put formaldehyde in his milk... A dozen dirty milkmen are selling milk without a license, and have been doing so for several years... One of the particular friends protected by the Commission has been found selling milk at 60 degrees... All because you seek to sell a few hundred quarts of Certified Milk to a few people, and the rest of the people in Rochester are buying milk from cows, many of whom are tuberculous, from stables, many of which are dirty. Yours sorrowfully, G.W.Goler"

PHI

The man who was acclaimed for saving thousands of babies due to his milk stations was, years later, accusing the milk commission of turning a blind eye to many illegal milk dealers in the city.

SCENE 3

MUSIC BED IN:

HOLLY

Goler's efforts at the turn of the century were based on improving the public's health in a variety

of ways. The Milk Commission followed in Goler's footsteps at first. So why, a decade later, was Goler disappointed in their efforts? Wouldn't the milk commission also be aiming to promote public health?

PHI

The milk commission definitely buttressed Goler's efforts. They hired the people to inspect farms and grant certifications to sell clean milk. Pasteurizing milk and keeping clean barns wasn't cheap though. This in turn slowly weeded out smaller farmers. While this kept more citizens safe because contaminated milk was less likely to get to market, it also started to commercialize the milk market in Rochester.

Many around the country looked at it in this way: since they declared milk as a perfect food meant to be consumed by all, the cities and farmers had to take all necessary action to deliver it to tables. This meant monopolizing the growing industry.

HOLLY

The milk commission here in Rochester shared the same opinion, specifically John Ralston Williams. In a letter he wrote in 1913, he said:

CUT TO:

VOICE ACTOR

Most American cities are in the hands of a large number of small dealers. The resulting division of energy, unnecessary duplication of equipment, the overlapping of routes, the waste of labor etc., means, in most communities, tremendous investment in inferior and inadequate equipment. The

efficient handling of milk in the city by a few central plants instead of many small milk rooms in horse stables and the elimination from the business of hoards of untrained inefficient small dealers, could not help but work for the benefit of the community.

PHI

The elimination of many small farms contributed to an almost harmful separation between farm and table. As the public started knowing less and less about the production of their milk, the easier it was for them to start drinking it without a second thought.

As the milk industry expanded to make the most money possible, they pressured families to consume quarts of milk a day. This was advertised as a way of becoming the most perfect humans we can be. The idea of perfecting ourselves through consuming milk became and remained popular for decades.

MUSIC BED OUT.

HOLLY

To promote milk as much as possible, the United States Department of Agriculture began promoting the consumption of milk in public schools in 1919.

PHI

Their campaign involved weighing infants before and after they were put on a diet of cow's milk, giving the fattest baby the winning prize.

Elementary school children were instructed by their teachers to drink milk for necessary vitamins they were missing from other parts of their diet. For over a century, this information misled the American public and reinforced the notion that milk was the perfect food.

Later on, 'got milk' commercials convinced the general public that milk was still necessary.

CUT TO: ['GOT MILK?' COMMERCIAL AUDIO]

"What do you fight?"

"Weak bones! With a never ending supply of milk, and chocolate milk."

"Want strong bones? The calcium in milk helps make your bones strong."

PHI

We were all told that drinking milk would make us big and strong. But now we're finally starting to realize that that isn't the case anymore.

The increase in milk regulations and government inspections did save thousands of children in a time when infant death due to foodborne illness and malnutrition was common. The work of George Goler and of health inspectors in the late nineteenth and early twentieth centuries was heroic.

However, this is where the milk industry and any milk commissions around the country should have stopped.

But as pasteurization became the USDA's standard, and as industrialization delocalized the distribution of farm products, health inspectors began representing the interests of

large corporations rather than those of small farmers.

Here is Melanie Dupuis again:

CUT TO:

MELANIE DUPUIS

Now there's so much milk out there that, of course, the dairy companies are going "Well, we don't need these little farms around here in New York." So if you have a truck and you have to get the milk from 12 or 50 cow farms, it's a lot simpler for the dairy company to get one truck to go to one, 5,000 cow farm. So it's very hard for those 50 cow farms to compete against the 5,000 cow farm in part, because the processor doesn't really want to have to go to pick up 50 cow farms worth of milk every day.

PHI

What began as a logistical complication has since shaped the modern distribution of milk, prioritizing factory farms run by large corporations which produce an excess of dairy and contribute to the release of methane into the atmosphere.

HOLLY

But still, this industry continues to persist to this day.

PHI

We can bring to light that modern campaigns like 'got milk' are ultimately promoting corporations with inhumane or unsustainable practices that contribute to climate change. As urbanization and industrialization has changed the way Americans get their food, the production of dairy has only become more excessive and wasteful.

CUT TO:

MELANIE DUPUIS

So there's these huge-scale dairies being set up in Arizona. And what are they making? Well, they don't have access to the fluid milk market but they make so much milk that they can manage to make a profit by putting it into cheese.

Where do you put all the surplus milk? Well, a lot of it goes into pizza cheese. So if you look at pizza nowadays, there's a lot less tomato sauce and a lot more cheese. And they now have pizza where it's stuffed with cheese in the crust, right? We're going to convince the fast food industry to just put more cheese in their everything.

I think that what's going to happen is that these large-scale dairy farms in Arizona are going to run out of water. Almond farmers are cutting down their trees because they can't water them. Will almond milk replace dairy? Probably not. The milk shed has been the longest local food system we've ever had - what the role of milk is going to be in the food supply chain in the future, I can tell you one thing, it's not going to be what it is now.

CONCLUSION

MUSIC BED IN:

PHI

Considering all these factors have the potential to wreak havoc on our environment, why do we *still* continue to drink cow's milk when its nutritional benefits are questionable at best? Has the appeal of milk's apparent "perfection" really persisted into the twenty-first century? With the

growing popularity of more sustainable milk substitutes like soy and oat milk, it's almost certain that the way we consume milk will change, even within the next ten years.

The way we consume milk today and however we will continue to in the future was shaped to a large extent by the public health initiatives that Rochester played an important role in. Perhaps the Rochester Department of Health and Goler's milk stations at the turn of the century serve as a reminder that we should continue to question the safety and ethicality of what we consume.

END CREDITS

HOLLY

HearUR is a podcast created by students at The University of Rochester. This episode was produced by Phi Kasem Beg, Holly Rowland, and Ellie Wasson. Our engineer was Ellie Wasson.

PHI

The music used on this episode was performed by Piano Movers and the Cabinetmaker. We'd also like to thank Melanie DuPuis for her interview.

This episode featured the voices of Ellie Wasson, Ness Patti, Jacob Smith, and Lauren Novosat.

HOLLY

Hear UR is created using Faders, a collaborative online audio production workstation. It offers browser-based audio recording and editing, all within an easy-to-use interface - all for free! Go check it out at Faders dot I O.

The coordinating producer for this

season of HearUR is Celia Konowe
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producers are Thomas Fleischman
and Stephen Roessner (Ress-ner).
And, be sure to check out the
other episodes of HearUR Season
Four: Rochester Retold at
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MUSIC BED OUT.

END.