Legionnaires Incident Case Study

Case Study in Policy Development

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The Illinois Public Health Leadership Institute - 1994-95
CASE STUDY

Digest / Abstract of Case

A. Title: Legionnaires Incident Case Study

B. Functional Area of Focus: Policy Development

C. Major Subjects Involved
   Developing plans and policies
   Managing resources
   Community / political involvement
   Assuring direct services
   Public health education

D. Setting of the Case

   County health department with Environmental, Laboratory, Nursing, and Mental Health services.

   County population of 800,000 adjacent to a major metropolitan area. Good County is considered to be an affluent county.

Divisions and Personnel Involved
   Environmental Health: Division Director, Chief Sanitarian, Environmental Engineer
   Program Support: Laboratory Director, Epidemiologist, Media Relation Specialist
   Administration: Executive Director, M.D.

Outside Agencies/Individuals:
   Chill County Health Officials
   State Health Epidemiologist
   University Hospital Officials
   Attending Physician
   Dapperville Muni. Officials
   Surviving Family Members

E. Authorship

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LEGIONNAIRES INCIDENT CASE STUDY
Public Health Leadership Institute
1994-1995

A 42 year old woman and resident of Dapperville, an affluent city most of which lies within the boarders of Good County, was admitted to Good County Hospital on Sept. 16, 1994 with symptoms characteristic of pneumonia. Twenty four hours later she was diagnosed with Legionnaires disease. Her condition continued to worsen and she died on Saturday, Sept. 24, 1994. The hospital held a news conference on Saturday to inform the public of her death. The woman's attending physician upon very short notice, had to answer questions from the news media. When asked how did the woman acquire the illness, he indicated that she could have aquired the disease from her water supply.

On Sunday, Sept. 25 the Crisis unit of Good County Health Department began to receive calls from the news media regarding the disease. The Executive Director, who had been out of town for the entire week, was unavailable so the calls were forwarded to the Health Department's Epidemiologist, and the Media Relations Specialist. The Epidemiologist, who was aware of the case several days before the news conference, informed the media that this was only a single isolated incident, not an outbreak and as such it had little public health significance.

Beginning that Sunday and continuing through the work week of Sept. 26, there were approximately 35 requests for information about the incident from both public and media sources. Additionally, television stations were calling to inform the health department when their camera crews would be arriving for interviews.

Monday, Sept. 26:

A strategy planning team meeting was held on Monday morning at Good County Health Department. Those in attendance were Executive Director; Environmental Health Director; Chief Sanitarian; Environmental Engineer; Epidemiologist; Laboratory Director; Media Relations Specialist. The group was informed of what had transpired over the weekend by the Epidemiologist. By 10:30 A.M. it had been determined that the woman was actually a resident of adjacent Chill County. The Epidemiologist was of the opinion that this was only an isolated case and not a public health issue. Besides, the woman wasn't a resident of Good County and therefore nothing more should be done. That same opinion was held by the State Epidemiologist when informed of the incident. The State therefore was only willing to provide advisory assistance if and when it was requested by Good County Health Department.

The news media was already in the health department's parking lot waiting for interviews with department staff. Chill County Health Department was contacted and asked if they would like to participate in the investigation. They declined the invitation and
encouraged us to continue.

Communication was held with the director of Public Works for the city of Dapperville. His concern was that the house was connected to Dapperville city water and sewer. He wanted to find a laboratory to analyze his water as soon as possible because the news media wanted to know if the city water supply was the source of the disease and if there should be any concern for others.

All of the team members felt that the health department was being pressured into acting and spending resources on a non-public health issue. However, if the department choose not to respond, it could lead to bad publicity for public health. It was the general consensus of the team that this was something that must be avoided at a time when public support is so badly needed by Public Health.

The following strategy was developed at the meeting:

1. The health department media relations specialist was to use the media to reduce any fears and to educate the public of the minimal risks associated with this isolated case.

2. A creditable laboratory was to be located that could perform analyses for Legionella on environmental samples.

3. The Laboratory director was to be in communication with the attending physician, the Dapperville Public Works Director, and the laboratory used to analyze any environmental samples in order to coordinate the collection and analyses of environmental specimens.

After the conclusion of the meeting, and finding no alternative course of action, the waiting media was allowed interviews with the Executive Director of the health department, the Chief Sanitarian of Environmental Health, and the Media Relations Specialist.

The husband of the diseased woman was contacted and he gave his permission for environmental samples to be collected at his house. He was very cooperative and wanted also to find the source of this disease if possible.

Fact sheets describing the risks associated with the disease were distributed by fax or mailed to the media and all interested people.

Tuesday, Sept. 27:

A second strategy meeting was held. Issues regarding jurisdiction were discussed as well as the Department’s role in this isolated case. It was generally accepted that because of the pressure of the media and the public, Good County Health Department was forced into a position in which it had to respond to the public’s concerns. This did not make good public health sense, but it might make good public relations sense. Good County Health Department
had significantly greater resources than Chill County Health Department and with Chill County’s approval and input, Good County Health Department was to take the lead in the investigation.

The team reaffirmed the fact that the public needed to be assured that there was little to fear from this isolated incident. This was to be accomplished through personal interviews with the media and news releases. Secondly, it was decided that sampling would be performed at the home on the evening of Sept. 28. This was to be performed jointly by Good County and Chill County Health Department personnel. Additionally, an interview with the husband needed be conducted in order to identify any possible sources of the infection. This interview would also be conducted jointly with Chill County but at a future date.

Chill County Health Department was notified of the meeting results and agreed with the strategy.

Dapperville’s Director of Public Works, being pressured by the media and the city administrators to produce more immediate results, decided to use a private firm to sample their municipal water supply.

After numerous failed attempts at finding a reputable laboratory agreeable to analyzing environmental samples for legionella pneumophila, the Laboratory Director, with the assistance of the State’s Regional Epidemiologist, found University Hospital. They had been performing environmental testing on their hospital water supply for years. In addition, they had a well-renowned authority on Legionnaires disease as head of their infectious disease laboratory. His expertise could be of value in this case.

Wednesday September 28:

Phone conferences were held with both the patient’s attending physician and the Director of the Infectious Disease Laboratory at University Hospital. Both were advised of our intention to sample the home environment and were asked for their input with regards to sampling sites and techniques.

The sample collection team, composed of the Laboratory Director and the Environmental Health Engineer from Good County Health Department along with the Director of Environmental Health from Chill County Health Department, arrived at the home at 8:00 P.M. An evening sampling time was chosen in order to avoid drawing any unnecessary media attention to the grieving family members. A survey was performed identifying possible sources of infection and samples were collected from the most likely sources. In all, eight samples were collected from the following locations:

1. Hot water tank
2. Shower children’s bath (hot)
3. Shower master bath (hot)
4. Tub master bath (cold)
5. Refrigerated water and ice cubes
6. Outside tap
7. Air conditioning condensate drain (swab)
8. Portable dehumidifier condensate drain (swab)

The samples were delivered to Good County Health Department’s laboratory for overnight storage. The next morning they were delivered under refrigeration to University Hospital Laboratory for analyses. Results of analyses would take four to ten days to complete.

Friday, Oct. 7:

A meeting was held at Good County Health Department with Environmental Health, Laboratory, and Media Relations personnel present. The objective was to discuss how the results would be handled once they were received. It was decided to include the deceased woman’s attending physician, and a well known authority on Legionnaires disease from the University Hospital Laboratory in any discussions in order to help interpret any positive results. The team also reaffirmed the need to conduct a joint epidemiological investigation of the incident with Chill County personnel. The team felt that a thorough investigation might reveal a new mode of transmission that could have a public health significance.

Dapperville Public Works Director had received word from the private laboratory that all three samples collected from Dapperville’s distribution system were negative for the Legionella organism.

Tuesday, Oct. 11:

University Hospital lab indicated by phone that all samples were negative for Legionella pneumophila. Another strategy meeting was held with Environmental Health, Laboratory, Epidemiology, Media Relations, and the Director of Chill County Health Dept. Environmental Health Division in attendance. It was decided that no information would be released to the press until the woman’s husband had been notified of any results and had given his approval. Additionally, Chill County Environmental Health Director thought that Chill County would be able to share the cost of the laboratory analyses. Total cost was to be $480.

Wednesday, Oct. 12:

The woman’s husband was informed of the results and he gave permission to release the information to the news media. He also agreed to participate in a final interview.

The media was continuing to ask if the results of the environmental testing were available. The Media Relations Specialist was now able to release the testing results. During the past two weeks, the media and the public had been educated to understand the significance and the frequency of isolated cases of Legionnaires
disease in this country. The media was therefore able to accept the negative results of the sampling without doubting the credibility of the health department.

Saturday, Oct. 15:

The Good County’s Laboratory Director, after conferring with the Chill County Epidemiologist, and the woman’s attending physician, conducted a telephone interview with the husband in which a case history of his wife’s activities was obtained. All known activities beginning from Sept. 1, through Sept. 16 were investigated. No new sources of possible infection could be identified.

Monday, Oct. 31:

Good County Health Department received final written laboratory report from University Hospital Laboratory. All samples were negative for Legionella pneumophila.

A final meeting with the Environmental Health Chief Sanitarian, the Laboratory Director, and the attending physician was conducted. It was agreed that no additional action could be taken. Chill County Health Department officials were notified of the final outcome. At that time Chill County indicated that they would not be able to share the laboratory expenses with Good County.

The husband was notified of the conclusion of the investigation and he agreed that nothing further could be done. He thanked the departments for their efforts in trying to solve the mystery. Additionally, the woman’s attending physician was notified of the final results. He also agreed that nothing further could be accomplished.

All records and reports were turned over to Chill County officials.
Procedural Policy Questions

1. Was it appropriate for Good County Hospital to hold a news conference to discuss the Legionnaires disease death?

2. Should the hospital have contacted the Health Department before the media was informed at the news conference?

3. Should the Epidemiologist have informed the health department's Executive Director or Environmental Health Director of the disease when the Department was first notified (several days prior to the death)?

4. Was it appropriate for the Department to react so pro-actively to the pressures of the media and public?

5. Would it have been better for Good County to shift all responsibility over to Chill County immediately as soon as they found out that the woman did not live in Good County?

6. Did the Department even have jurisdiction to collect samples from a residence located just outside it's boundaries?

7. Should the Department have used any of its resources in this investigation? Could it be justified as a training exercise?

8. Did Chill County have any legal or ethical obligation to contribute towards the cost of laboratory analyses?

9. Should additional community relations be established? And if so, with whom?

10. Should agreements be established between local health departments outlining what are to be the actions and responsibilities of each entity in future incidents?

11. Should a data base of community resources be established in case of a major emergency?

12. Did the media exposure help or harm the image of the Health Department? Public Health in general?

13. Does the action taken by Good County Health Department set a dangerous precedent for Public Health?
City: House was source of Legionnaires' Health Dept. to test this week

By James Pluta

There's no reason to be afraid of the water, said city Public Utilities Director Albert T. Wills, who spent the last three days defending the quality of the city's water supply, which comes from Lake Michigan, as completely safe.

Since late Saturday of Legionnaires' disease — believed to be caused by bacteria in the water supply at her 300 Heights home — said there have been numerous inaccurate reports that her home has been tested.

Reports that the bacteria Legionella pneumophila was found in the home are untrue, said. No bacteria was found, he said, because testing of the home was not scheduled until sometime Wednesday or Thursday.

The 20-year-old woman was not at risk and should not be worried.

"Our city's system is as safe as any we know it," said. "Maybe the risk factor is like 6 or 7 at most. It's just something the average person should not be worrying about."

"That didn't stop many residents from buying bottled water at retail outlets once word of the death was made public. It also did not stop stores from stocking up on extra water."

"We ordered 20 extra cases of water today. We'll probably add more on Wednesday," said Bob, assistant manager of The Pines Food 

"About five people have come up and asked where the bottled water is located. People are buying the water," said since he first heard about the woman's death early Sunday morning. He spoke several times with infectious disease specialist Dr. , who made the claim of the source of the disease after treating her.

"The only connection is Legionella is of waterborne origin and said they were pretty sure the source of the organism is from the water supply of the patient's home," he said. "That's the logical place it has home.

Inside:
• Woman's death 'a tragic case' on Page 3
• Janet Lazzari remembered at school on Page 3
• Case isolated and very rare on Page 3

Water

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other illnesses are all of a greater risk for contracting than Legionnaires,' he said the disease is not known to occur from anything other than inhalation.

"You don't get it from drinking water, but from a mist from air sources, or from a shower or in air conditioners, whirlpools, hot tubs — anywhere water can be accumulated," Poole said. "When a whirlpool is not drained and refilled with new chlorinated water, the bacteria can develop in the water, the more you see this occurring."

But while samples taken from the home could be the most crucial part of the investigation, Poole said the city's water testing is not needed now.

He said water analysis is always testing, analyzing and rechlorinating the water, from the time it leaves the lake to the time it enters the city and its neighborhoods.

And while water analyzed at the Water Purification Plant on Lake Michigan is not tested for Legionella — as it is not required to be by the federal Environmental Protection Agency — other methods of purifying the water supply and maintaining a stable chlorine residual to combat such bacteria remain an important part of the process.

Few microbiological laboratories in the area are set up to test for Legionella, said city water operations manager who routinely tests city water samples at the Water Reclamation Plant.

However, though has only done a limited analysis of Legionella in the water supply, said it needs to be investigated how common the problem is even though it's more often than not present at water plants.

"I'm surprised this woman contracted this bacteria just we haven't paid much attention to it. But I do think we want to investigate this further."

Water is filtered through the Plant, where it goes through a filtration and chlorination process. It is distributed to the homes and businesses through underground pipes.

At more than 100 sampling locations all over the distribution system, the EPA for approval — including a site on Court just a block from home — one water sample is taken per month by trained and certified water inspectors using sterilized bottles.

"We take a minimum of 100 to 120 samples," said whose own house in on the system. We check for chlorine residual to see if it is simple. If it goes down, we go back and regulate the chlorinator because as water moves through the system we want to maintain a stable residual."

Samples are taken in a staggered schedule each week throughout the month and all go back to a special microbiological laboratory at There, said, tests are run for total and fecal coliform bacteria, an indicator organism that, by its presence or absence can determine whether there is a bacteria present.

"We have a very good record of high quality control for bacteriological sampling," said. "We maintain the chlorine residual and keep the water from contamination. That's the assurance we give all the way to the customer. What happens in the house is the customer's responsibility."

Samples taken Wednesday on Thursday will be taken to another site. Lab specialists have been preparing a col...
Officials: Legionnaire's disease an isolated case

By LORI RAY
Staff Writer

Authorities are calling the death of [redacted] woman from Legionnaires' disease "an isolated case," adding that the public should not worry about a contaminated water supply.

The 42-year-old woman was reported to the hospital in [redacted] after being diagnosed with Legionnaires' disease about one week earlier.

A type of pneumonia, Legionnaires' disease is an uncommon respiratory illness caused by inhaling the Legionella bacteria, which thrive in warm and cold water systems, such as air conditioning units, humidifiers and water supplies.

While [redacted] County health officials said they do not know how the woman came in contact with the bacteria, there is no indication the disease was transmitted through the water supply.

"We're still very much in the initial stages of the investigation," said [redacted], an epidemiologist for the [redacted] County Health Department. "But we see this as an isolated case."

A [redacted] city official said the city's water supply is tested regularly for chlorine levels and bacteria, adding that the water supply for the neighborhood was tested within the last two weeks.

The department was the 2200 block of [redacted] with her husband, [redacted], and three children.

Family members declined to comment Sunday.

"We have a closed water supply throughout the city, but it's not exposed anywhere," said [redacted], assistant director of public utilities. "Because the water system is not exposed to the environment, the bacteria could not, for instance, enter the water supply through a ventilation system, he explained.

"We have great confidence in the system," said, "The public has no need to worry at all."

Public Utilities Director Allan [redacted] said his department has asked the county to test water samples at the home as a precautionary measure.

"At this stage there is nothing to indicate this came from the city's water supply," [redacted] said. "But we have to respect that this is a bacteria found in water."

The county health department will be working with the county's environmental health division to try and determine where the bacteria may have come in contact with the bacteria.

"We look at where this person has been, what this person has been doing," [redacted] said. "After reviewing the information, the health department may take cultures and water samples from the home in an attempt to locate the source of the bacteria, he said.

"It's very difficult to determine a source," said. "The source..."

DISEASE: Finding the source of the bacteria is tough task

Continued from Page 1

The disease is most prevalent among people who are:

- at least 50 years old
- male
- smokers
- alcohol users
- have a chronic disease such as emphysema or asthma

Source: [redacted]

Legionnaire's Disease nationwide

The Center for Disease Control in Atlanta reports about 1,200 cases of Legionnaires' disease annually throughout the United States.

Risk factors:
The disease is most prevalent among people who are:

- at least 50 years old
- male
- smokers
- alcohol users
- have a chronic disease such as emphysema or asthma

Source: [redacted]

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- male
- smokers
- alcohol users
- have a chronic disease such as emphysema or asthma

Source: [redacted]
Home tests negative for deadly bacteria

LORILYN_

Staff Writer

chances are it will never be known how Janet ___ contracted Legionnaires' disease, which med her life nearly three weeks. Samples taken from her house and all tested negative, the bacteria that causes it. ___ County health officials said today.

It's not a surprising result because it's difficult to isolate the disease, particularly in an isolated home, said one of the health department spokesmen.

The results are not surprising, the department said, the tests do not answer one question: How did the 42-year-old housewife, who is in contact with the bacteria? Anthony ___Jen's widow, says the question will never be answered.

"It's still up in the air where my wife caught it," said. "Somewhere out there there's Legionella bacteria. It's just surprising the only one who caught it."

Anthony ___ said he was not surprised by the test results, but he added it was "good to know it didn't come from the house."

Health officials, however, said the results do not prove ___ was not exposed to the bacteria at home.

"There's no real indication it was acquired in the house," said Larry ___, the county health department supervisor of the ___ County Health Department. "But that doesn't mean it wasn't there in the past or could be there in the future."

Water temperature fluctuations and other factors can make the bacteria disappear.

In cases where there is an outbreak of the disease, it is easier to pinpoint the source.

On Sept. 28, four days after died, ___ and ___ County health department officials collected eight samples from the home, which is on the southeast side of the city in ___ County.

Samples were taken from areas in which the bacteria can thrive, such as shower heads, the refrigerator drip tray, the water heater and a whirlpool.

When water containing the bacteria vaporizes, a person can breathe in the bacteria and contract the disease. It is not transmitted through drinking water.

A public health laboratory in ___ conducted the tests to see if the bacteria were present.

Tests fail to find source of Legionnaire bacteria

By Tom ___

Staff Writer

The source of a fatal case of Legionnaire's disease in ___ last week remained a mystery. tests of the water in the victim's home came back negative on Wednesday.

The results reinforce what health officials suspected: that neither the 42-year-old victim's family nor her neighbors face elevated risks of catching the bacteria, said ___ of the ___ County Health Department.

No cases of the disease have been reported in ___ County since Janartner was diagnosed with the illness on Sept. 17 in ___ Hospital, officials said.

___ died on Sept. 24 after suffering from high fever, shortness of breath and numbness in her arms.

Legionnaire's disease is a form of pneumonia carried in water. It was identified in 1976 when 182 people at an American Legion convention in Philadelphia contracted the disease and 22 of them died.

Researchers believe the organism grows in contaminated water

The disease infects people's lungs when they inhale droplets of the contaminated water that are sprayed into the air or when they drink the water.

An estimated 10,000 cases of the disease occur in the U.S. every year, but only people in a few distinct categories are vulnerable, experts say.

Those most vulnerable include heavy smokers, older people, people with chronic respiratory ailments, such as emphysema, or people with weakened immune systems, such as those who are HIV-positive. ___ was a smoker.

___ death, the ___ Public Works Department hired technicians to test water samples in the public system around her home in the 2200 block of ___ Drive.

Those tests came back negative last week, said Allan ___ director of public works. The eight samples from inside and outside the home were taken on Sept. 28, 11 days after she was diagnosed with the disease. ___ said.

Investigators will now conduct interviews with her family to determine if she
source of Legionnaires' disease is a common critter

Usually harmless, bacteria tied to Naperville death

Most of the time they're harmless. But in some circumstances, they can infect people's lungs and cause a fatal form of pneumonia with an exotic name: Legionnaires' disease.

The death of a 42-year-old woman Saturday from Legionnaires' disease brought the malady back to the forefront of public consciousness and on Monday even led neighbors of the victim, Janet, to call the Centers for Disease Control and Prevention in Atlanta to find out if they were also at risk of contracting it.

The short answer: no more so than anyone else anywhere. The longer, more interesting answer is that Legionella is yet another of those microbial marauders that a healthy human body is probably exposed to frequently—from air-conditioning systems in large buildings, say, or contaminated shower heads—and that homo sapiens has found the means to fend off.

"It's not spreading. It's not a new thing. It's not coming over from Europe or anything like that," said Dr. Dan, an infectious-disease specialist at the CDC in Atlanta. "People who get it just happen to be at the wrong place at the wrong time."

And they're more susceptible:

The victims generally fall into a

J.S. lifts most Haiti sanctions
Disc 30

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few distinct categories: heavy smokers, old people, people with chronic respiratory ailments such as emphysema or people with weakened immune systems, such as those who are HIV-positive.

The disease was first identified in 1976, when more than 180 American Legion convention-goers fell ill in a Philadelphia hotel. By the time the disease had run its course, 32 people had died and the illness had acquired its now-famous name. An estimated 10,000 cases of Legionnaires' disease occur in this country annually. About 10 to 15 percent of those cases are fatal.

Experts say the disease is easy to miss because it is so rare. In the last five years, the Department of Public Health has confirmed only 181 cases in the state.

"Legionnaires' disease requires a high index of suspicion on the part of the physician," said Dr. Gary, a professor of infectious diseases at University Medical School. "You have to think about it."

Doctors who treated Janet at Hospital in 13 days before she died thought she had something other than Legionnaires' disease, said Dr. Joseph, director of emergency medicine at the hospital.

They treated her for what they thought was an infection of the lining of her lung, he said. Only later, in Hospital in was she diagnosed with Legionnaires' disease.

How Lazzari contracted the disease remained a mystery Monday. One doctor theorized she may have picked it up in a wet place, such as her shower.

Investigators with the County Health Department will be examining her water heater and other places in her home to discover if the bacteria might have been breeding in unusual concentrations, said Nancy, a spokeswoman for the Health Department.

The disease has occurred, however, this much is known: Legionella has to enter the lungs to cause illness.

In the years since the 1976 American Legion convention, scientists have generally come to believe that the bacteria are carried in water between 100 and 120 degrees. Temperatures above 120 degrees are usually fatal to the bacteria.

If contaminated water is then vaporized and sprayed into the air, people can inhale tiny particles of water containing the bacteria. Cooling towers, air-conditioning units in large buildings, whirlpools, shower heads and humidifiers can suspend the microscopic particles in the air.

A second, still-disputed theory holds that people who drink contaminated water can contract the disease. Dr. Victor, an infectious disease specialist at the University of Pittsburgh, believes that while people are swallowing the water, tiny particles can accidentally be taken into the lungs.

Two to 10 days after being exposed to Legionella, a person who is susceptible to the disease will develop a fever, feel fatigued and have a persistent cough. Legionnaires' disease is one of the largest families of respiratory ailments grouped under the general heading of pneumonia.

In fact, many experts consider it less contagious and less dangerous than more common strains of pneumonia that can be transmitted by human contact and coughing. Legionnaires' cannot be spread by person-to-person contact.

Some signs of Legionnaires' disease are an unusual high fever of 103 or 104 degrees, diarrhea, stomach or intestinal pains and headaches, said Dr. Some patients also have shortness of breath or chest pains.

If detected in time, the disease can usually be treated with antibiotics such as erythromycin or tetracycline.

But if left to run its course, the bacteria build up in the lungs, may have been more vulnerable to Legionnaires' than other family members because she was a smoker, said Dr. James, a specialist at Hospital who treated her.

The Health Department said some steps that people can take to protect themselves from the disease include:

- If you have a humidifier that you haven't used in a while, put

- If you have a whirlpool or a jacuzzi, clean it frequently and don't let the water sit around too long.

- Use household disinfectant to make sure shower heads and faucets are clean.

Dr. added another piece of advice.

If you smoke, stop. Legionnaires' disease may be just another way that smoking can kill you.
Water supply called safe after Legionnaire death

By Tom Pelton

A 42-year-old mother from County died this weekend of Legionnaire's disease, a waterborne bacteria that has killed three people since 1991.

Experts believe the public water supply is safe and that the bacteria may have grown in a well placed such as a shower or sink inside the victim's home.

The County Health Department will inspect Janel home in the block of Drive to try to find where the bacteria came from, said Nancy, spokeswoman for the department.

"It's not an epidemic. We believe it was an isolated case," said Dr. James, a specialist in infectious diseases at Hospital in.

Janel's husband and three children ages 19, 16 and 8—have not been diagnosed with the disease. Janel may have been more susceptible because she was a smoker, said.

Between 25,000 and 50,000 people a year in the U.S. contract the Legionella pneumophila bacteria, and between 10 percent and 15 percent of those who contract the disease die, said.

The illness causes headaches, high fever, coughing and shortness of breath, and, like more common strains of pneumonia, can be treated with antibiotics.

Doctors discovered the disease in 1976, when 102 people at an American Legion convention in Philadelphia contracted the illness and 29 of them died.

Researchers believe the organism grows in contaminated water in air-conditioning units, hot tubs, showers and other places.

The disease infects people's lungs when they inhale droplets of the contaminated water that are sprayed into the air or when they drink the water.

Nine people have contracted the disease in County since 1991 and three of them have died, including two in 1992, according to the health department.

Janel was born in Township High School in 1969 and had lived in for about seven years. She spent most of her time caring for her children and volunteering at a local elementary school, her family said.

On Sept. 11, Janel complained of chest pains, shortness of breath, high fever and numbness in her arms, and her family took her to the emergency room at hospital in. Her husband, Tony, said her husband, Tony.
Legionnaires’ disease kills Township alumna

Janet 42, a 1969 Township High School graduate, died Saturday in Hospital from complications of Legionnaires’ disease, but medical authorities say her death does not signal an outbreak of the rare illness.

The disease is caused by Legionella bacteria that tends to grow in warm water. “It occurs in shower heads and water heaters (not set) above 120 degrees,” hospital spokesman Brian said.

Obituary information is in Section 2, page 8.

County leading probe of Legionnaires’ death

The County Health Department will lead the investigation into the death of a woman, who died Saturday after apparently contracting the infamous Legionnaires disease.

Janet 42, died Saturday in Hospital, but medical authorities say her death does not signal an outbreak of the rare illness.

There have been 10 reported cases of Legionnaires’ disease in the past five years, resulting in three deaths, according to Nancy spokesman for the department. The case was the first to be reported in the county so far this year.

The disease is caused by Legionella bacteria that tends to grow in warm water. “It occurs in shower heads and water heaters (not set) above 120 degrees,” hospital spokesman Brian said.

But stressed the water supply is not contaminated. “There is no danger in the water supply,” he said.

People only get sick with this if their immune system is already suppressed in some way,” said, citing smokers, elderly people and people with chronic respiratory systems as examples. “This is an isolated case. ... physician does report she is a smoker.”

Doctors determined a resident, inhaled the bacteria, said. She was admitted to Sept. 16.

Typical Legionnaires’ symptoms include confusion, blood test abnormalities of liver function and blood in the urine. Digestive symptoms also might occur.
There were no signs of Legionnaires'

By Kathleen

Although Legionnaires’ disease is a form of pneumonia, Janet showed no signs of the lung disease when she was brought to the hospital’s emergency center on Sept. 11, according to Dr. Joseph, medical director.

“This is really a tragic case. The truth is that pneumonia was looked for, and the signs were not there,” he said.

Janet, 42, woke about 5 a.m. that morning with chest pains and shortness of breath, Dr. said. Her family brought her to the hospital about two hours later.

Dr. said the doctor who checked her performed several tests for pneumonia. The test showed that her lungs, took tests measuring the amount of oxygen getting into her bloodstream from her lungs, took chest X-rays and a blood cell count. Her lungs sounded clear and the tests came back normal with no sign of pneumonia, he said.

The doctor diagnosed pleuritic chest pain, sharp pain felt when a deep breath is drawn in, Dr. said. The condition can be caused by several illnesses, including pneumonia. Janet was given an anti-inflammatory drug and told to visit her regular physician in two days, which she did.

Dr. didn’t believe the Emergency Department was at fault because the disease had not progressed fully enough to be able.

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Health Dept.: Air, not water is source for Legionnaires’ by Charlotte

Just as the bubonic plague dies and reappears in another part of the world, most recently in India, another assortment of deadly viruses begin separate invasions of the human body with no apparent reason for the increase.

As acquired immune deficiency syndrome (AIDS) continues to conquer people all over the planet, a smaller, underpublicized germ forms an existence in a local woman’s home, just as deadly, just as painful.

The acute respiratory infection which caused the death of a resident on Saturday, is formed by the bacterium Legionella pneumophila. The disease was first discovered during a 1976 Philadelphia American Legion convention.

Of the 147 people who contracted the disease, 29 died. Before 1976, Legionnaires’ disease, named for the legion members who suffered from the Legionella pneumophila bacteria, had never been recognized.

The disease is considered an aquatic bacteria primarily occurring in surface water. If diagnosed early enough and treated by administering the antibiotic erythromycin, the patient’s survival rate is favorable according to the Centers for Disease Control.

Not everyone will know they even had it as there are 34 species of Legionella that exist today, the deadliest being Legionella pneumophila, and a common bacteria known as Pontiac fever which is similar to influenza.

Though Legionnaires’ disease is capable of creating a sporadic epidemic, the Department of Health states that the death of is most likely an individual occurrence.

“The health department says it’s not an outbreak,” said Nancy, who runs relations specialist for the County Health Department. Dr. and the Health Department starts because we do want to get to the source of where it is coming from.

“It is actually an acute respiratory infection caused by the bacteria L. pneumophila and a form of pneumonia,” she said.

Also said said there were no reported cases of Legionnaires’ disease in the county during 1990. But in 1991, three cases of Legionnaires were reported and out of the three reported in 1992, two were fatal. Last year, two cases were reported in the county, and death is the first case this year.

The matter is currently under investigation, said because the two deaths in 1992 were not made public, the investigation didn’t go far enough to determine the source.

“I don’t think these are the only reported cases in the county’s history,” she said. “We just did some quick research, but I don’t believe this is the first time.”

She stated that in the 1992 deaths the patients already suffered from some other serious underlying conditions or respiratory problems.

With both of those people, their immune systems were compromised,” she said. “They were isolated cases.”

Symptoms associated with Legionnaires’ disease include development of a fever, cough that can be dry or produce sputum, and chills.

“Other symptoms that may occur include abdominal pain, diarrhea and confusion,” she said.
Legionnaires' disease kills Township alumna

But stressed the water supply is not contaminated. "There is no danger in the water supply," he said.

Nancy, spokesman for the Health Department, said the bacteria must be inhaled into the lungs to infect a person, and even then, developing Legionnaires' disease is rare.

"People only get sick with this if their immune system is already suppressed in some way," said, citing smokers, elderly people and people with chronic respiratory systems as examples. "This is an isolated case..." physician does report she is a smoker.

Doctors determined a resident, inhaled the bacteria, said. She was admitted to Sept. 16.

Obituary information is in Section 2, page 8.

County leading probe of Legionnaires' death

The County Health Department will lead the investigation into the death of a woman, who died Saturday after apparently contracting the infamous Legionnaires' disease.

Janet, 42, died Saturday in Hospital, but medical authorities say her death does not signal an outbreak of the rare illness.

There have been 10 reported cases of Legionnaires' disease in County in the past five years, resulting in three deaths, according to Nancy, spokeswoman for the department. This case was the first to be reported in the county so far this year.

The disease is caused by Legionella bacteria that tends to grow in warm water. "It occurs in shower heads and water heaters (not set) above 120 degrees," hospital spokesman Brian said.

But stressed the water supply is not contaminated. "There is no danger in the water supply," he said.

"People only get sick with this if their immune system is already suppressed in some way," said, citing smokers, elderly people and people with chronic respiratory systems as examples. "This is an isolated case..." physician does report she is a smoker.

said the disease, a respiratory illness, is not contagious and afflicts 25,000 to 50,000 Americans every year. The disease has a mortality rate of 15 to 20 percent, he added.

said the chances that case signals the beginning of an epidemic are "very, very, very slim."

Typical Legionnaires' symptoms include confusion, blood test abnormalities of liver function and blood in the urine. Digestive symptoms also might occur.
City, county take samples, test for disease’s source

By James Pluta

Samples have been taken from the municipal water supply and from a city home that may have been the source of a bacteria that contributed to the death of a 42-year-old woman from Legionnaires’ disease last week.

And while the testing procedures scheduled to be performed following last weekend’s death of Janet Allen were independent of one another, and took place at different times and places, both analyses are geared toward the same end.

Public Utilities Director Allan Davis said the tests will determine whether the potentially life-threatening bacteria, Legionella pneumophila, can be found in any part of the system between the Heights home and the neighborhood.

The test samples—which include one-liter water specimens taken by the city last Wednesday and swabs of plumbing fixtures in the home taken by the county later that evening—are now in the hands of two private medical laboratories.

The lab tests, city and county officials, could determine whether the bacteria exists in any part of the system and that the home is a “probable” source of the disease and that there is “a high degree of confidence” the city water is the source.

Debbie Lee of the city’s water department begins the testing procedure at the city works plant for the possible source of the Legionnaires’ disease that killed a woman last week.

Testing

Continued from Page 11

“Jenkins has all the right stuff,” said a health department official. “He’s a leader in the field of microbial epidemiology.”

A second sample was taken from an apartment building in the downtown area Wednesday. A third sample was taken from a home in the county.

The city took water samples from the home and the downtown area Wednesday. A third sample was taken from a home in the county. These samples are being analyzed by the city’s health department.

County samples, however, are being analyzed at an independent laboratory. The city’s health department is working with the city’s water department to develop a system that will provide the media for the bacteria to develop. A system that will be able to test for the bacteria.

City residents return to the waterworks Thursday to continue their routine. The city’s health department said they will not say anything about the results until they have been analyzed. The city’s health department said they will not say anything about the results until they have been analyzed. The city’s health department said they will not say anything about the results until they have been analyzed.
Questions & Answers on Legionnaires' Disease

Q. What is Legionnaires' disease?

A. Legionnaires' disease is an acute respiratory infection caused by the bacterium Legionella. An outbreak of this disease in Philadelphia in 1976, largely among persons attending a state convention of the American Legion, led to its name.

Q. What are the usual symptoms of Legionnaires' disease?

A. Patients usually develop fever, chills, and cough, which may be dry or produce sputum. Other symptoms that may occur include abdominal pain, diarrhea, and confusion. It is difficult to distinguish Legionnaires' disease from other types of pneumonia by symptoms alone.

Q. Is the illness always severe?

A. Studies have shown that about 5-15% of known cases of Legionnaires' disease have been fatal. However, many people may be infected with the bacterium causing Legionnaires' disease without developing any symptoms; others are treated without having to be hospitalized. Recent information suggests that many cases of Legionnaires' disease go undiagnosed.

Q. How is the disease diagnosed?

A. Your physician can order tests to confirm the diagnosis of Legionnaires' disease. The most useful tests include culturing the bacteria from sputum, detecting the presence of the bacteria in a urine sample, and comparing antibody levels in two blood samples collected three to six weeks apart.

Q. Is there effective treatment for Legionnaires' disease?

A. Erythromycin appears to be effective in treating the disease and is currently recommended as the drug of choice. Other drugs are available for patients unable to tolerate erythromycin.

Q. How is Legionnaires' disease spread?

A. Most people contract Legionnaires' disease by inhaling mist that comes from a water source (e.g., showers, cooling towers, whirlpool baths) contaminated with Legionella bacteria. In some cases, the disease may be transmitted by other ways, such as aspirating contaminated water. There is no evidence for person-to-person spread of the disease.

Q. Who gets Legionnaires' disease?

A. People of any age may get Legionnaires' disease, but the illness most often affects middle-aged and older persons, particularly those who smoke cigarettes or who drink heavily. Also at extra risk are persons whose immune system is suppressed by diseases such as cancer, kidney failure requiring dialysis, diabetes, AIDS, chronic lung disease or heart failure. Those who take drugs that suppress the immune system such as prednisone, azathioprine, or cyclosporine are also at higher risk.

Q. Are air conditioning systems a potential source of spread?

A. The bacterium has been found in cooling towers and evaporative condensers of large air conditioning systems. Such systems have been associated with outbreaks of disease.

Q. Where is the disease found?

A. Cases have been identified throughout the United States and in several foreign countries; it likely occurs worldwide.

Q. How common is Legionnaires' disease in the United States?

A. It is estimated that around 10,000 people develop Legionnaires' disease each year in the United States. An additional unknown number are infected with Legionella bacteria but have only a minor illness or no illness at all. The disease can occur in outbreaks or as single cases.