

Isn't it nerve wracking to hear the tantalizing beginnings of a story and not know the outcome or the behind the scenes details? Don't you just love it when you are curious about something and you finally get to hear the rest of the story? Paul Harvey used to say.... "And now you know the rest of the story". No wonder we waited for him to finish his stories.

I was thinking of this recently when I was fortunate enough to attend one of the numerous low cost seminars available to me as a health agent. Both private and State organizations offer presentations and seminars throughout the year. Frequently, a not for profit group such as Mass. Health Officers Association (MHOA) or Mass Association of Health Boards (MAHB) will team up with MA DEP or MA DPH to offer updates and timely training. I am fortunate to have these trainings offered. They are critical to staying informed and being prepared, for the responsibilities of a health agent, and therefore his or her board of health, are varied and numerous to say the least.

One such recent offering was "Infectious Disease Surveillance, Reporting and Control", sponsored by MHOA, MA DPH, the Bureau of Communicable Disease and the Mass. Association of Public Health Nurses. While all the information was interesting and useful, the part I always like best about this type of seminar is when people talk about the lessons learned from recent actual investigations. For the most part, Listeriosis was the theme of the day: how to recognize it, how to report it, how to prevent the potentially devastating effects of it. Eventually, we heard the rest of a story.

Listeriosis is caused by the bacterium *Listeria monocytogenes*. It is present in much of our environment. Reservoirs for this bacteria include soil, water, silage, mammals and fowl. Foods associated with infection include unpasteurized milk and milk products such as soft cheese, processed meats and contaminated vegetables.

Listeriosis may be experienced by healthy people as a mild flu-like illness and will, most likely, go unreported. In the elderly, the young or pregnant women, however, it can mean death or abortion. This is why we are all told to wash our vegetables and avoid drinking unpasteurized milk. This is also, why pregnant women are told to avoid deli meats or to cook them, for one of the devilish things about *Listeria* is that it can stay alive and well in refrigeration. It is killed by high temperatures, though. So, don't be tempted to eat those raw hotdogs. Always cook them thoroughly.

The symptoms of Listeriosis, if you are unfortunate enough to suffer from more than the mild illness, include fever, headache, stiff neck, nausea and vomiting.

It's a tricky trail to follow when it comes to tracking this bug. The incubation period ranges from three to seventy days, with a median of twenty-one! Can you imagine trying to remember what you ate for the last twenty-one days? That food log is the first task for the patient when a food borne illness is suspected. It is very challenging for the health agent or public health nurse to complete the food history questionnaire, for almost everyone wants to blame the last meal they ate.

This very challenge is what faced MA DPH in late 2007 when there were some cases of Lysteriosis being reported. The number of cases alone did not stand out as unusual. For an elderly man to die from this disease and a woman to suffer a stillborn child was also, unfortunately, not unusual. What was unusual was that, eventually, the

cases were “fingerprinted” by MA DPH with their method of Pulsated-Field Gel Electrophoresis or “PFGE”. While the individual cases were being documented at the State level and the State was notifying the local boards of health, the common denominator had not been discovered until a local health agent reported a case to the state. The State became involved and along with the food questionnaire, samples of food were taken from the home for testing. That case’s bacteria was a genetic match to the other cases. Then it became really interesting, for the connection turned out to be milk and it was pasteurized milk. The brands of milk all originated from one small dairy. The dairy’s investigation involved both pasteurized and unpasteurized milk being collected for testing and various sites were swabbed for culturing. Also at that point, previous patients and the widow of a victim were interviewed and their food history taken because in some cases it had not been, at least not to the extent that it is for Lysteria.

When the evidence was in, it confirmed that the human cases and the Lysteria found at the dairy were genetically the same. A recall of milk from the small dairy in the Shrewsbury, MA area began. That is all I knew at the time, from food recall alerts I receive at work and from the news. I emailed my daughter who has friends and relatives in the area and wondered about it but my attention was quickly diverted to other more local concerns.

In the end, there were at least five families who would never forget. Three elderly men died. A thirty-four year old woman had a stillborn child. A very fortunate thirty-one year old woman delivered a premature but healthy child. The dairy had outdated methods of cleaning and bottling without sufficient barriers between the unpasteurized and bottling areas. While it was never proven what point or procedure exactly caused the contamination, the family could not afford the rehab of the place. And so, the place closed and, along with four human lives, New England lost another dairy.

We may not always be privileged enough to find out the rest of the story, as I was in this case. The lesson I learned, though, and that I want you to keep in mind, is that information from the local level is what cracked the case. Lysteria is known as a “tip of the iceberg” disease and contamination can continue for a prolonged time before there is enough evidence to solve it and stop it. Let’s do whatever we can and let’s pay attention when our learned colleagues at MA DPH teach us their lessons learned.

Cathleen Drinan is the health agent for the Town of Halifax. She welcomes your ideas and comments. She can be reached at 781 293 6768 or cdrinan@town.halifax.ma.us