Introduction

“The capital of the poor man”

It is one of the highest duties of the City Council to protect the health and lives of its citizens. The capital of the poor man is his health. The interest which he receives upon his capital is the wages of each day's labor. It is as much the duty of the City Government to protect that capital, principal and interest, as it is to protect our large manufacturing corporations. The health of the people is the real foundation upon which the prosperity of the city depends.

James C. Abbott
Mayor of Lowell, Massachusetts
Jan. 4, 1887

The goal of this series of articles is to chronicle some of the history of medicine and public health in Lowell, and all of the social, political, psychological, and economic issues involved in the health of a city over a long period of history. It begins way before Lowell was Lowell and the plan is to end the series in the 1960's.

While the other sciences made great advances over the centuries, medicine was stuck in the writings Hippocrates (circa 460 BC – circa 370 BC) and Galen (129 AD – circa 200/circa 216). Before the 1880's, and for some even later, humors, miasma, supernatural beings and forces, and moral behavior were the explanations for disease and determined the attempts at treatment.

Presented here is this introduction is my own brief formulation of the history of mankind’s understandings and explanations of disease. These various “theories” were used over time alone or in combination to explain epidemics. I use the word theory broadly here. The first ten of the twelve mentioned are not scientific theories; scientifically testable and tested, they are hypotheses, postulates, beliefs, consensuses, or ideas that fit with or is the current way of thinking.

For millennia Homo sapiens used conceptual metaphors and only conceptual metaphors to understand disease. People used something known or imagined to better understand something not known or understood. They could not see the cause of a disease
or the direct link of cause and effect. They made inferences based on the available evidence and their cultural and individual understandings.

We see one or a combination of two or more of the ten prescientific theories together to explain disease. The theories are:

1. “Wrath” theory, as in the wrath of a god with a small “g.” Here, an illness is caused by a supernatural being that has powers to affect humans.
2. Closely related to this is “spirits” theory. Spirits are incorporeal entities that can affect corporeal beings. Included in this is the belief that some humans have supernatural powers and can summon these spirits.
3. “Act of God” theory attributes disease to an act or the will of an all-powerful God. This is often for punishment or to send some type of message to humans.
4. “Humor” theory purports that disease is caused by an imbalance of four bodily fluids or humors (black bile, yellow bile, blood, and phlegm) originated with Hippocrates (circa 460 – circa 370 BC) and was developed by Galen (129 AD – circa 201/circa 216 AD). This theory dominated medical thinking for centuries, right up to the late nineteenth century. The longstanding practices of bleeding, blistering, and purging were a result of humor theory.
5. “Miasma” theory places the causes of disease on harmful vapors or miasmas. Miasma theory and humor theory existed together for centuries and were often intertwined.
6. “Planets” theory sees disease, especially epidemics, as a consequence of astrological or astronomical alignment, comets, meteors, and solar and lunar eclipses. The word “influenza” is a vestige of this belief. It is Italian for influence and from the Medieval Latin influential.
7. Closely related to miasma theory and planets theory is “atmosphere” theory, where climate, weather, pollution, and other atmospheric events either cause disease or cause diseases to be more of less severe, affect some areas more than others, and some people within an area more than others. Causal events can also be terrestrial or telluric, such as earthquakes. An example of this is the word “malaria,” which originates from the Medieval Italian mala aria meaning “bad air.”
8. “Contagion” theory asserts that something passes from human to human without
being identified. Contagion is from the Latin, "con-" meaning "with" and "tangere" meaning "to be in contact"). The idea of contagion existed before the discovery of specific germs causing specific diseases.

9.) “Scapegoat” theory can sometimes be thought of as "toxic immigrant" theory. There has been a pervasive belief throughout history up to the present that disease, especially epidemic disease, is caused by an influx of immigrants into an area.

10.) “Lifestyle” theory blames disease on the individual for being either too indulgent or too indolent.

The two scientific theories that explain epidemic diseases are:

11.) “Germ theory” states both that microbes cause disease and that specific microbes cause specific diseases.

12.) “Germs in contexts” theory takes germ theory and places disease in social, economic, political, psychological, and other biological (e.g., nutritional, environmental) contexts.

“Theodoric of York, Medieval Barber” was a sketch on Saturday Night Live in the 1970s. Theodoric of York was a barber and surgeon played by Steve Martin. Theodoric used bleeding along with strange potions (“I mixed powder of staghorn, gum of arabic with sheep's urine, and applied it in a poultice to her face”) as the solution to all of his patient’s symptoms and illnesses.

Joan, played by Jane Curtin, asks about her daughter Isabelle “Will she be alright?” Theodoric responds, "You know, medicine is not an exact science, but we are learning all the time. Why, just fifty years ago, they thought a disease like your daughter's was caused by demonic possession or witchcraft. But nowadays we know that Isabelle is suffering from an imbalance of bodily humors, perhaps caused by a toad or a small dwarf living in her stomach."

After Isabelle is pronounced dead, her mother screams “You charlatan! You killed my daughter, just like you killed most of my other children! Why don't you admit it! You don't know what you're doing!"

This causes Theodoric to consider post-Enlightenment ideas:
"Wait a minute. Perhaps she's right. Perhaps I've been wrong to blindly follow the medical traditions and superstitions of past centuries. Maybe we barbers should test these assumptions analytically, through experimentation and a "scientific method." Maybe this scientific method could be extended to other fields of learning: the natural sciences, art, architecture, navigation. Perhaps I could lead the way to a new age, an age of rebirth, a Renaissance! . . . [he engages in a short, silent consideration of the concept] Nah!"

This lack of investigation and effort was not limited to Theodoric of York’s period in mankind’s history. Those who challenged the orthodoxy even with evidence were scoffed at, marginalized, and ignored. Throughout history, the entrenched beliefs endured without evidence, and even when they caused harm. And new practices were resisted even when there were demonstrable benefits.

Instead of a book (the original plan and destination), my writings will be a series of historical examinations that will be chronologically presented and published to the web as they are written, not waiting for the final product.

The Isolation Hospital in Lowell was a starting point for this journey, and it was in other ways a mid-point. It was not chronologically a mid-point, but it sent me forward in time to see what happened to the institution, and it sent me backward in time to see what led to its construction.

The hospital also became for me a metaphor for a society’s response to disease and, on a larger scale, an attempt to control something that seemed to be beyond control and understanding. There were countless attempts to do this throughout history. Some succeeded, some failed, and some helped. The key is that some people at least tried.

A few notes on the style of these writings . . .

I deliberately did not use footnotes. At the risk of seeming less scholarly, I think they make a book like this less readable. When reading a book with them, it feels like going over speed bumps of even having to take detours; both are necessary in certain contexts, but they do not add positively to the experience of the ride.
I often put the titles, authors, and dates for references right in the text rather than just parenthetically. I also used original text and the primary author’s name and the date of the writing or original publication for context, rather than name of an editor and publication date of a later edition.

I used a lot of long extended quotes especially from primary sources. Also, they are often unabbreviated and untruncated. I usually did not change, correct, or modernize spelling or grammar of the quotes. In a few cases I did modernize, and I mentioned it in the text. I felt that I used a lot of quotes that are not familiar or easily accessible, and abbreviating, truncating, and modernizing too often weakens them and something is lost.

In closing, while I tried to report the facts, checking them and substantiating them, there are admittedly uncertainties, contradictions, and missing information in my presentation, which I tried to acknowledge. I also did not shy away from interpretations and theorizing; however, I always pointed out when I was doing so.