

**1918 Pandemic in Maine:
Lessons Applicable to Public Health Crises Today
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Goal

Describe the influenza pandemic of 1918 in Maine and list four lessons from the pandemic that are applicable to responding to or managing a public health crisis today.

Sources

My sources of information include Maine State Archives and various newspaper clippings from Maine newspapers from the fall of 1918.

Disclosures

I have no relationships to disclose.

Background

1918 Pandemic with Influenza caused the highest death rates, ever, more than the Black Plague and any other pandemic widespread cause of death.

Worldwide Impact

- 50-100 million deaths
- Killed 5-10% of young adults

US Impact

- Highest death rate, ever
- 675,000 deaths, mostly young adults
- 24,000 of 34,000 US Army WWI deaths
- ~All of 5,000 US Nave WW deaths

Maine Impact

- Pandemic Influenza 1918 Maine
- 750,000 population, very rural with no city >70,000
- Urban areas with a number of new immigrants including Lewiston and Portland
- 5,000 estimated deaths due to influenza from September 1918 – May, 1919
- Half of the deaths with a 2nd associated cause – pneumonia and pregnancy
- Half of the Maine influenza deaths in October, 1918
- Half of the influenza deaths were among those ages 20 – 40 versus 3% in preceding years
- 1,026 Mainers died in WWI; over half (550) from influenza
- Public health infrastructure: each municipality had a local board of health with full public health authority with no oversight from the state.

Role of **policy** in controlling a public health emergency

Need for Consistency and flexibility

1918 in Maine:

- Policies related to closure varied from town to town and state to state, causing chaos and inequities. Closing of schools vs theaters vs factories vs churches caused controversy
- Example: Lewiston with 30,000 population with about 47% recent French Canadian immigrants. Lewiston is a center of textile mills, with 50% of the workers women and 80% from Quebec.
French/Canadian immigrants in Lewiston Census:
 - 1850 – none
 - 1870 – 689
 - 1880 – 4,500
 - 1920 – 14,815
- Portland had 69,000, with many Irish, Italian, French immigrants
- Theaters: closed in any communities. They were kept open in some, such as eventually in Lewiston, a city crowded with unheated tenement buildings and factories. After initially closing the theaters, the local board of health (BOH) stated the theaters should stay open since they were a source of heat for the many thousands living there in unheated tenement buildings. Theater owners pressured BOH in many communities to stay open.
- Schools: some closed them; others kept them open because of child care issues, which was the case eventually in Lewiston, especially since they kept the factories open.
- Churches: some closed them; some kept them open; some allowed only outdoor services (despite the cold). At one point, Lewiston closed theaters and churches but not factories, schools, or saloons. Faith communities protested.
- Factories: in most places were kept open, e.g. Lewiston, as they were felt to be essential.
- Variability: Waterville closed most businesses but a neighboring town, Fairfield, did not, and benefited from the uptick in business. This was a common occurrence with neighboring towns of “closed” towns under pressure to keep businesses open.

2009 H1N1 in Maine:

- Closure policies were more consistently applied, for instance, policies related to vaccine priority groups made it easier to distribute vaccine more equitably, though even then there were problems with the priority groups for vaccine representing such a large proportion of the population, relative to the amount of vaccine available in the first few weeks.

Lesson: Need policies developed consistently but with flexibility to address a community’s unique justifiable needs.

Level and Balance of **authority** – federal, state, local

- **1918 in Maine**: authority was almost entirely local. Local boards of health were too susceptible to the political and economic pressures. Need checks and balances

of levels of authority – fed, state, local. As a result of the chaos, Maine Legislature changed the locus of public health authority to be at the state level in January 1919.

- **2009 H1N1 in Maine:** funds and guidance from the federal gov't worked well with state authorities and local responsibilities.

Lesson: need a balance of federal, state, and local responsibilities and roles.

Addressing a crisis in an **urban area** with crowded impoverished living conditions

- **1918 in Maine:** large immigrant population living in crowded impoverished conditions, no access to the one hospital. Many died before it was recognized that a second hospital was needed.
- **2009 H1N1 in Maine:** large immigrant populations living in crowded impoverished conditions were identified early and at the table with local public health departments to plan vaccine and other prevention and control efforts.

Lesson: Need to coordinate urban services early and engage

Addressing a crisis in a **rural area** without much infrastructure

- **1918 in Maine:** rural areas with no hospitals or robust infrastructure had the highest death rates. Some populations were dispersed: Colleges sent students home who lived within 100 miles; others were spread out in college housing.
- **2009 H1N1 in Maine:** Maine's statewide coalition-based community public health infrastructure was newly implemented and led to strong connections. For instance, Tribal Liaison, representing Maine's 5 Tribes who are mostly very rural, sat on H1N1 Steering Committee, and provided critical information that led to Maine having highest rates in the nation for vaccine coverage. Overall, there is still not much other infrastructure in rural areas, and public health expenditures per capita in rural areas are much lower than in urban areas (NACCHO 2008 National Profile of LHDs).

Lesson: Public health needs a strong presence in rural areas, especially since there is little infrastructure otherwise.

Summary:

- Develop consistent policies with room for justifiable flexibility;
- Ensure roles and responsibilities are a system of checks and balances between federal, state, regional, and local government entities;
- Identify vulnerabilities early and address them by including them in the process early: vulnerabilities in geography, often because of a lack of infrastructure (rural versus urban); and vulnerabilities in populations.

**October 10, 1918 Conversation at the Lewiston Board of Health
as reported by the Lewiston Evening Journal**

Two prominent figures in the meeting were Dr. Epstein, the Chair of the Lewiston Board of Health and Monsignor McDonough, pastor of St. Patrick's Church.

Controversy erupted because of the Board of Health's closing of churches and not the factories. Lewiston was home to numerous textile factories employing thousands of recent immigrants from French Canada, 50% of whom were women.

Dr. Epstein (Dr. E)

Although the Spanish Influenza has not taken too much of a hold here yet, I believe we have waited too long to close all public gatherings, including churches. We have learned from Boston that we need to act before the epidemic takes off.

Monsignor McDonough (MMc)

Dr. Epstein, do you consider the factories and mills as public gatherings?

Dr. E

Not in that sense. The factories and mills are necessary to sustain life.

MMc

Then you think there are times when the church is not essential?

Dr. E

Certainly, they are essential in a sense, but not in the sense that mills and factories are essential.

MMc

I am not asking for comparisons, I want to know if you think churches are an essential asset to a community?

Dr. E

I do not care to discuss that phase of the situation.

MMc

Are mills and factories not dangerous?

Dr. E

Do I understand you would like to close the factories?

MMc

I believe there are no half-way measures – if you're going to close public gatherings, I would close everything.

Dr. E

This epidemic is serious – influenza is a contagion and causes infection.

MMc

They say that you can't close the mills. Why? Because they are essential. Some of us believe the churches essential – very essential indeed. We should not be denied the privilege of appealing to our Heavenly Father. Who has the authority to close the churches?

Dr. E.

The Lewiston Board of Health, as with all town boards of health in Maine, are the only entities that have the authority to ban public gatherings.

MMc

And, if I should open my church next Sunday, you might call in the police and close me up?"

Dr. E.

We have the right to go as far as we like in the interests of public health.

MMc

I am glad to hear defended by others the principle that you can't close a church without some difficulty – that the church has some measure of protection.

"Sow and action and you reap a habit"; and if men temporarily vested with some municipal authority are permitted to close the churches upon some judgment; a dangerous precedent might easily be established.

I believe it may be said that, without reflecting upon any individual, the boards of health, sufficiently competent for the duties of ordinary times, are often composed of men lacking the time, the money, the poise, and the character to deal with a great emergency and pass judgment upon delicate and vital questions. In other words, when the church is at the mercy of an incompetent jury, its friends should present its claims as an essential factor in the life of the community.

The time may come when there will be neither mills nor factories; but the time will never come when divine worship – community worship – will not be a necessity. Praise of God upon a Sunday is more essential than any other work in all the world.

Consider the atmospheric conditions in our mills – in plants where the interest of the manufacturer is not always for the good of the worker, but rather for the manufactured goods. Conditions there are not for the best interests of public health; hired workers assemble under conditions advantageous to the spread of disease.

But in church, when they go to Sunday morning services, they have taken care to be cleanly; they are not fatigued physically; they can sit in comfort, in a well-ventilated and heated auditorium; they are at peace in heart and mind.

Contrast conditions in the church with those prevailing in the mills!

Again, take the question of hours. They work 54 hours a week in the mills; they are one hour a week on the Lord's Day, in church.

Our greatest asset is the religious gathering on the Lord's Day; and it is the least menace!

In view of these facts, I cannot stand by and see the church penalized and penalized unfairly.

Our authorities do not close the mills. Why? Well, they are told, the people would not stand for it – the governing powers of big industry would not be pleased. “So”, they say, “we’ll close something that will stand for it, even though permitting it to keep open would involve no great danger – we’ll close the churches!”

If there is real danger, let us take precautions intelligently and sensibly by striking the disease at the root – quarantining those who are ill. If this cannot be done - if there is not the means – don’t ask us to close our churches while the real dangers are allowed to go unchecked.

The doctors do not know everything. Presumably, they are acquainted somewhat with anatomy; but they know little more about psychological influenza upon the body than in the time of St. Paul. And, the man who could diagnose certain cases of disease might be totally unfit to pass upon a great, broad, delicate moral question.

Just last winter the United State Government, as a relief for the coal shortage, closed factories and stores and other vast industries – but forbade to close the churches.

Now our local board of health has the authority, its members say, to do what they choose. I know I was criticized severely for not closing my church last Sunday, but when it comes to a question of telling me to close my church, I want to know why.

I take every step possible to protect the church. If the federal government told me to, I would ask its authority. If force was employed by the government, I would not foster rebellion; but I would have a proper accounting through the United States courts.