

Once Upon a Time, 100 Years Ago in NAIC History...

1919: When world events and insurance collide

1919 was the end of the influenza pandemic, the most severe pandemic of any in recent history. Mortality was high in almost every age group, resulting in an estimated 50 million deaths worldwide. This, in turn, created heavy and unexpected burdens on life, accident and health insurance companies.

A paper “The Effect of Influenza on Insurance” prepared by the Honorable Burton Mansfield, Insurance Commissioner of Connecticut and Thomas F. Tarbell, Actuary for the Connecticut Department, was presented during the *Proceedings of the National Convention of Insurance Commissioners* in September 1919.

THE EFFECT OF INFLUENZA ON INSURANCE
 By **Thomas F. Tarbell, Actuary, Connecticut Department**

At the time of publishing Part II of the Connecticut Insurance Report for 1919 (Business of 1918) a circular letter designed to obtain statistics showing, among other things, the effect of influenza upon mortality, was sent out by the Honorable Burton Mansfield, Insurance Commissioner of Connecticut, to the thirty-two life insurance companies doing business in that State. I had the honor of assisting Mr. Mansfield in the preparation of the resulting statistics. Special stress was put upon the increase over the normal rate of mortality both as respects the year 1918 and also the total period affected. Owing to the fact that many of the companies were not able to furnish complete statistics, and replies were received from only sixteen companies at the time the report went to press, the results of our investigation were not entirely satisfactory. I was therefore pleased to have an opportunity to go into the matter again and report the results of this Convention.

I have divided the present investigation into three parts: first the effect of influenza upon mortality and sickness, second the effect of influenza upon the increase in new business, and third, the effect of influenza upon premium rates. As regards influenza claims I wish to point out that I have included therewith claims due to la grippe and pneumonia. The three are so closely related that, as I found from the previous investigation, more satisfactory results would be obtained by taking them together than by making an attempt to segregate the claims due solely to influenza. For instance, in many cases the cause of death was pneumonia following influenza, and many deaths are stated as due to la grippe which unquestionably were due to influenza.

I quote below the information requested from the various life companies, companies writing health and accident insurance and fraternal societies doing business in Connecticut, upon which the present investigation is based.

Life Companies.

1. Amount of insurance written during the first six months of the years 1916, 1917, 1918 and 1919. (Written basis.)
2. Total amount of death claims incurred during the period from October 1, 1918, to March 31, 1919.
3. Amount of such claims due to influenza, la grippe and pneumonia.
4. Has your company increased rates on any forms of policies since October 1, 1918? If so, what principal factor influenced such increase, or increases?

Tarbell's report was also widely published and distributed in other insurance publications at the time, such as *The Eastern Underwriter* (Sept. 12, 1919) and *The Spectator* (Sept. 18, 1919).

September 12, 1919 THE EASTERN

Founded 1865

The Provident Life and Trust Company of Philadelphia

The Thrift Campaign reinforces the Provident agent's canvass for long endowment.

Northwest corner Fourth and Chestnut Streets

Effect of Influenza on Insurance

By THOMAS F. TARSELL,
Actuary, Connecticut Insurance Department, at National Convention of Insurance Commissioners

Thomas F. Tarbell, actuary of the Connecticut Insurance Department, read a paper on "The Effect of Influenza on Insurance" at the National Convention of Insurance Commissioners at Hartford on Thursday. He said in part:

"I have divided the present investigation into three parts: first, the effect of influenza upon mortality and sickness; second, the effect of influenza upon the increase in new business, and third, the effect of influenza upon premium rates. As regards influenza claims I wish to point out that I have included therein claims due to influenza and pneumonia. The three are so closely related that, as I found from the previous investigation, more satisfactory results would be obtained by taking them together than by making an attempt to segregate the claims due solely to influenza. For instance, in many cases the cause of death was pneumonia following influenza, and many deaths are stated as due to influenza which unquestionably were due to influenza.

"In connection with the former investigation we found that only a few companies were in a position to state the increase over the normal rate of mortality due to influenza for the full period affected. Accordingly, in the present investigation I divided the subject into two parts: first, the effect of influenza upon mortality and sickness; second, the effect of influenza upon the increase in new business, and third, the effect of influenza upon premium rates.

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"The influenza and kindred claims represent 47.8 per cent of the total claims. It would thus appear that so far as our statistics go we may reasonably assume that the mortality rate was almost double that of the normal during the period under consideration.

The Eastern Underwriter

Life Insurance

EFFECT OF INFLUENZA

State Actuary of Connecticut Marshals Data and Advances Conclusions

MORTALITY RATE ALMOST DOUBLED

Increase in New Business Due to General Prosperity and Government Insurance as Well as to the Epidemic

Thomas F. Tarbell, actuary of the Connecticut Insurance Department, discussed at the meeting of insurance commissioners at Hartford the results obtained from circulating life companies, health and accident companies and fraternal societies with a view to obtaining data on the effect of influenza on insurance. Mr. Tarbell based his calculations on returns from thirty-one life, eighteen health, and thirty-two fraternal organizations. He said in part:

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THE SPECTATOR

DEATH CLAIMS INCURRED

October 1, 1915, to March 31, 1916, 1917, 1918, 1919

Year	Number of Deaths	Percentage of Total
October 1, 1915, to March 31, 1916	1,200	100.00
October 1, 1916, to March 31, 1917	2,400	200.00
October 1, 1917, to March 31, 1918	1,800	150.00
October 1, 1918, to March 31, 1919	1,200	100.00

It is seen at a glance that the amount of death claims incurred increased practically 100 per cent for the first three of the four periods covered. There is an increase of 50 per cent in the increase for the 1918-1919 period. The effect of influenza is clearly shown. The claims for the 1918-1919 period are nearly double those of either of the two preceding periods, the percentage of increase over the 1915-1916 period being slightly over 100 per cent.

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Amounts of claims due to influenza, grippe and pneumonia, \$1,000,000.

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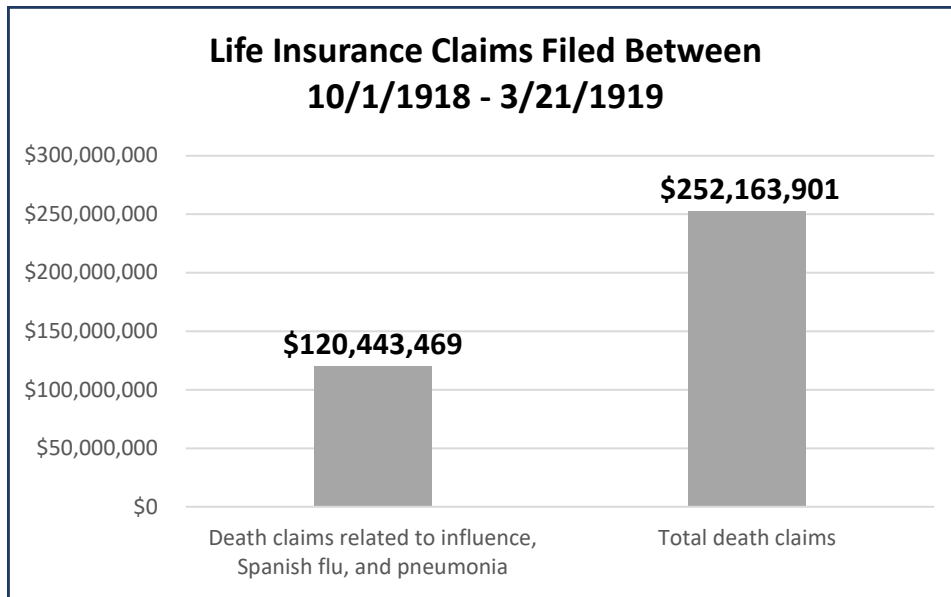
The Effect of Influenza on Insurance: Report Background & Major Findings

A circular letter was sent out to 32 life insurance companies doing business in the state of Connecticut to collect statistics on the effect of influenza upon mortality. Mr. Tarbell's investigation was divided into three parts based on claims incurred during the same six periods dated October 1, 1915 – March 31, 1919:

1. The effect of influenza upon **mortality and sickness**
2. The effect of influenza upon the **increase in new business**
3. The effect of influenza upon **premium rates**

It was estimated that there was a **25% increase** over the normal rate of mortality due to influenza, as respects to claims incurred up to December 31st, 1918.

So...what about those life insurance claims?



The influenza and kindred claims represented **47.8%** of the total claims.

Other Reported Statistics

Fatalities by Age

Influenza, Spanish Flu, and Pneumonia Deaths by Age Between October 1918 – March 1919

Over 40	517
Under 40	1,489

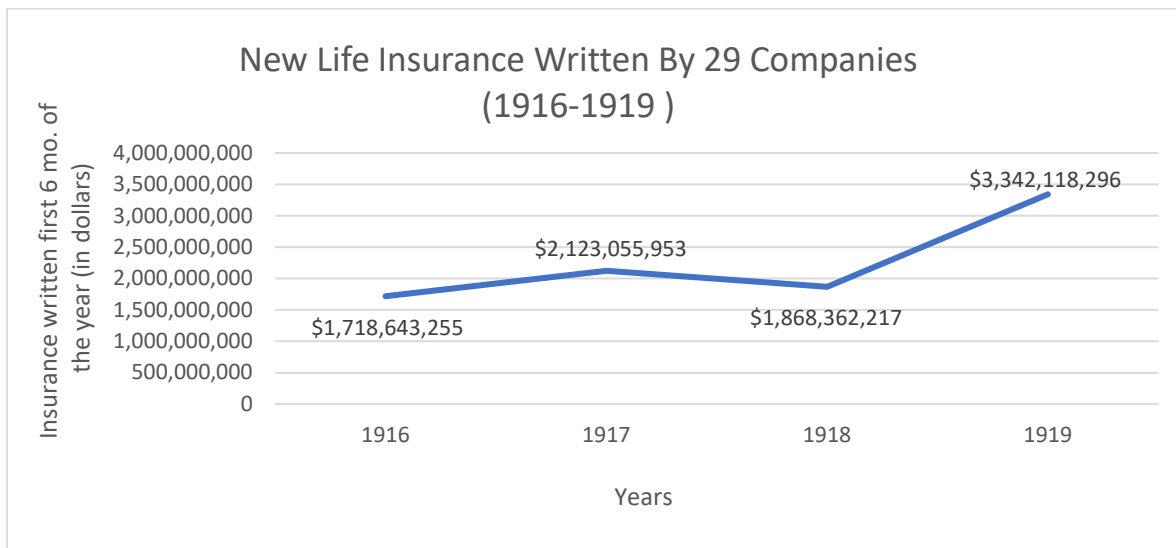
- 74% of influenza fatalities affected those younger than forty.
- In many cases influenza itself was not the cause of death, but rather a secondary infection (pneumonia) as a result of the influenza virus.

Total Death Claims Incurred

	Number of death certificates/death claims
10/1/1915 – 3/31/1916	1,122
10/1/1916 – 3/31/1917	1,095
10/1/1917 – 3/31/1918	994
10/1/1918 – 3/31/1919*	1,972

*During this last period, **1,069** death claims were due to influenza, la grippe (Spanish flu) and pneumonia.

Was influenza “good for (insurance) business”? Yes, but that’s not the entire story...



In 1919, there was a **78.9%** increase in the amount of new business written by life companies compared to the 23.5% increase in 1917. What else besides influenza accounted for this surge?

Mr. Tarbell concluded that the top three most likely reasons for the increase in insurance uptake, in his actuarial opinion, were (in order):

- 1.) General economic prosperity
- 2.) Influenza
- 3.) Government insurance for sailors and soldiers.

Mr. Tarbell acknowledged that it was difficult to attribute causation to one specific event. Even though there were many variables in play that could account for the increase in insurance business, in his opinion influenza did play a big role. However, the booming economy at the time (in part due to the manufacturing of munitions for the war effort) made insurance more affordable for consumers and was probably also a major factor for the increase in business.

The effect of influenza on premiums

- At the end of 1918, out of 31 life insurance companies surveyed, **only 3** indicated that they made increases in premium rates. Two of the companies attributed the increase to the influenza epidemic.
- Increase in premium rates by 13 companies writing health and accident insurance were **nearly all attributed to influenza** (with the caveat that “the need for increased rates had been felt for some time”). Nine other health and accident companies reported that they did not raise premiums. One company had not yet decided at the time of the survey whether an increase was forthcoming.

The full report can be found in the **1919 NAIC Proceedings** on the Library website: <http://library.naic.org/>

The screenshot shows the top navigation bar with links for Home, Members, Staff, and Login/Logout. Below the navigation bar is a search bar with a magnifying glass icon and the text "Search...". Underneath the search bar are four buttons: "ADVANCED SEARCH", "SEARCH RESEARCH REQUESTS", "SEARCH NAIC PROCEEDINGS" (highlighted in yellow), and "ASK THE LIBRARIAN". Below these buttons is a horizontal menu with six items: "ABOUT THE LIBRARY" (highlighted in blue), "QUICK LINKS", "REGULATOR RESOURCES", "NAIC STAFF RESOURCES", "ONE STOP SEARCH", and "FAQS".



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