



## Estimates of fatalities for major epidemics of infectious disease

100,000,000  
Plague of Justinian  
541-542

50,000,000  
Black Plague  
1346-1350

39,000,000  
HIV/AIDS  
1960-present

20,000,000  
1918 flu  
1918-1920

10,000,000  
Modern plague  
1894-1903

**Native Americans**  
Estimates for the pre-Columbian population of North America range from 2 to 18 million. By 1900, that population had dropped to 500,000. Exposure to European diseases like smallpox, measles, typhus, and others are believed to be responsible for a large share of this population loss.

2,000,000 Asian flu 1957-1958

1,500,000 Sixth cholera pandemic 1899-1923

1,000,000 Russian flu 1889-1890

1,000,000 Hong Kong flu 1968-1969

981,899 Fifth cholera pandemic 1817-1896

704,596 Fourth cholera pandemic 1853-1872

570,000 Seventh cholera pandemic 1961-present

Swine flu 284,000 2009

Second cholera pandemic 200,000 1829-1849

First cholera pandemic 110,000 1817-1823

Great Plague of London 100,000 1665-1666

Typhus epidemic of 1847 20,000

Haiti cholera epidemic 6,631 2011-present

2014 Ebola virus epidemic in West Africa 4,877

4,555 Congo measles epidemic 2011-present

1,210 West African meningitis outbreak 2009-2010

774 SARS 2002-2003

## Market Commentary: Longer Term Effects of the Virus and How Far We Have Come

January 2020

Will the Coronavirus have the ability to trigger a global economic slowdown resulting in a dip in financial markets? Way more importantly, what risk does this virus pose to the global population?

It seems like there are a few unlucky characteristics regarding how and where the virus surfaced:

- In a major transport hub for China,
- During a holiday season where travel is heightened, and
- A virus that does not start showing symptoms, though is still contagious, for approximately 14 days.

After initial praise for how China handled the outbreak as compared to SARS it now seems like they held back information for a short period of time. The world has since reacted rather diligently in trying to stem the tide of the virus that has blown by SARS in the amount of people infected.

It is not all bad, thankfully:

- The Virus so far has < a 3% death rate and odds are that this declines further, hopefully significantly further, once the medical community has a full handle of what they are dealing with.
- It does not seem to be as contagious as a flu or cold though this we shall also get a better handle on soon – whether the world simply got unlucky with the outbreak or it is perhaps more contagious than initially viewed.<sup>i</sup>

One item worth noting is how far the world has come in combatting viruses generally. In the 1300s, the Plague wiped out 30% to 60% of Europe. It lowered the global population – significantly. That same Plague



from time to time infects some people in areas of Africa. The world is thankfully able to contain and treat it resulting in a 10% death rate – still terrible but materially better than historically<sup>ii</sup>.

Biotech is already working on treatments and vaccines. We have heard conflicting reports on how long it would take to create a vaccine. According to one source, a similar approach to a flu shot can be completed within months. Other sources believe it is a matter of days to create potential medical treatments though then it may take at least a year to test for side effects and the like.

How will it affect the markets? Based on the characteristics of how and where the virus appeared, it seems likely headlines will be worse for a bit. While we have made mention of the world economy becoming more regional in our Q3 Explorations, there is still major global trade occurring that is at risk of slowing down. It may also slow down consumer spending temporarily as people stay home, which could set up a bit of a negative spiral. As usual, there is no true consensus on this either. On a call with Vanguard we had this past Friday, which we had set up to discuss some other macro items, we did get into a discussion in regard to their view of the virus. They thought it would be non-material, knocking off maybe 20 bps of growth for China. There are obviously others out there who think it could be worse, with some views of a 25% reduction from 6% to 4.5%. What we did not realize until analyzing past virus pandemics was that the swine flu killed roughly 200,000 people in 2009<sup>iii</sup>. The market did quite well despite this fact.

We continue to follow this story, analyzing how this may affect our portfolios longer term and if any adjustments may be merited.

### **IMPORTANT DISCLOSURE**

*The information contained in this report is informational and intended solely to provide educational content that we find relevant and interesting to clients of Fountainhead. All shared thoughts represent our opinions and are based on sources we believe to be reliable. Therefore, nothing in this letter should be construed as investment advice; we provide advice on an individualized basis only after understanding your own circumstances and needs.*

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<sup>i</sup> One Chinese business person visiting Germany infected eight in the meeting – sounds rather contagious but I am no expert

<sup>ii</sup> Graph on left source: <https://wordlesstech.com/historys-worst-epidemics-infographic/> ; Plague info:

[https://en.wikipedia.org/wiki/Black\\_Death](https://en.wikipedia.org/wiki/Black_Death) [https://en.wikipedia.org/wiki/Black\\_Death](https://en.wikipedia.org/wiki/Black_Death); Modern day: <https://www.afro.who.int/health-topics/plague> - Left untreated it will still kill 30% - 60%+

<sup>iii</sup> <https://www.livescience.com/41539-2009-swine-flu-death-toll-higher.html>