

## Mortality due to Spanish Flu 1918

*"I had a little bird, its name was Enza*

*I opened the window and In-Flew-Enza.*

*Obey the larws and wear the gauze,*

*Protect your jarws from septic parws."*

(Popular poem regarding the flu in those days)

The Spanish flu of 1918 is believed to have caused a total death toll of about 50-70 million across the world, making it one of the deadliest pandemics in the history of mankind. The time also coincided with the last phase of World War I and thus to maintain morale many of the participating nations didn't report their deaths. Hence it's safe to assume that the deadly Flu has affected and resulted in lot more deaths than accounted for.

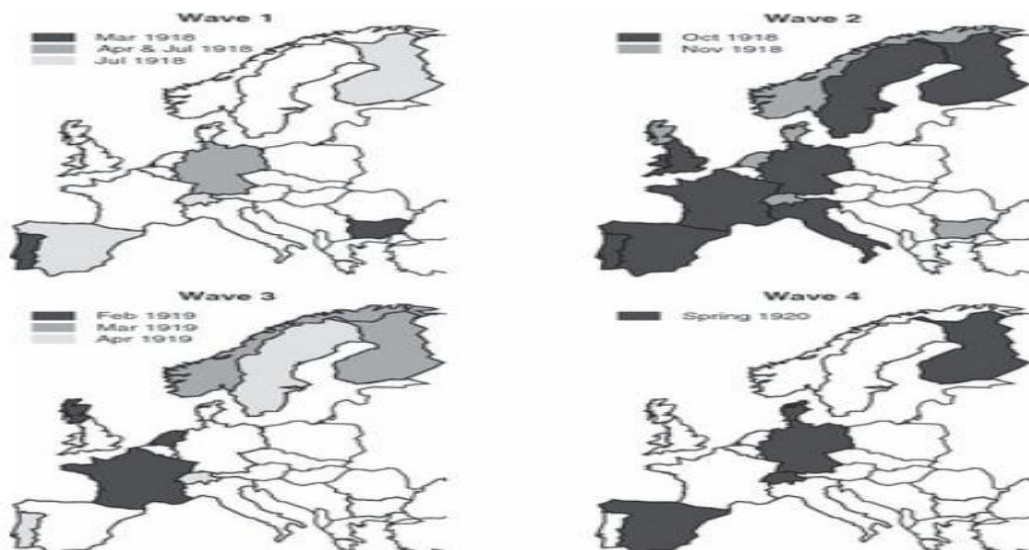
Country	Estimated Deaths(UpperLimit)	Country	Estimated Deaths(UpperLimit)
Australia	15000.0	Japan	390000.0
Brazil	300000.0	Korea	200000.0
Canada	50000.0	Mexico	230500.0
China	1280000.0	New Zeland	8900.0
Denmark	5000.0	Norway	15000.0
France	400000.0	Portugal	118065.0
Germany	426600.0	Spain	260000.0
Ghana	100000.0	Sweeden	34500.0
India(British Republic)	13880000.0	Switzerland	25000.0
Indonesia	1500000.0	UK	250000.0
Iran	2431000.0	US	675000.0
Iraq	700000.0	USSR	450000.0
Italy	410000.0	Vietnam	33000.0

The above tables show the estimated deaths in major countries around the world. India has the highest number of reported deaths estimated to be about 14 million people. A comprehensive analysis on “Mortality in India during Spanish Flu of 1918” can be found [later](#). The flu also caused lots of deaths around the world. The Spanish Flu of 1918 had a huge impact of several Asian countries. Countries like Indonesia, China, Iran and Iraq suffered over half a million people each.

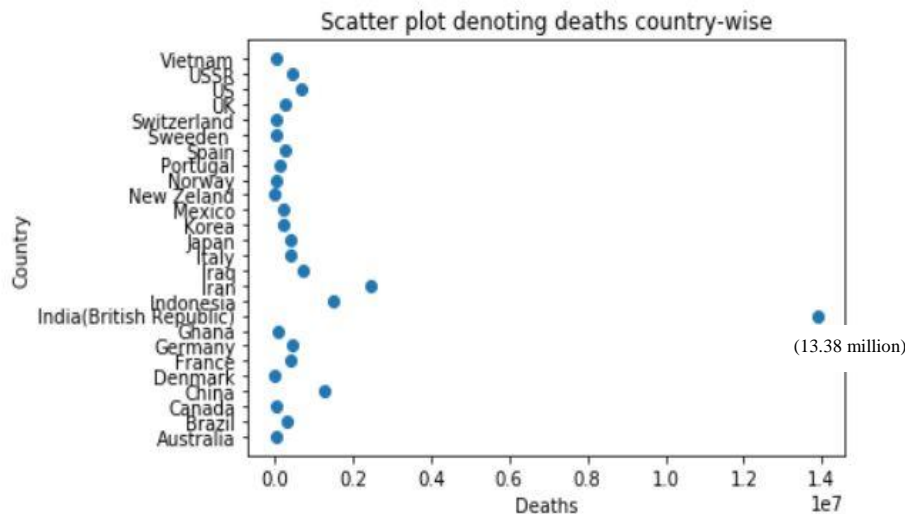
- **Impact on Iran-Iraq** - Iran and Iraq suffered heavy casualties primarily because they were employed as low class peasants and working end people. During the last year of the world war, Indian and British soldiers were stationed in Bushehr and Bandar-e Lengeh Ports while the Russian army held its ground near the Azerbaijan and Ghazvin Province. They were the people responsible for the heavy lifting for both the Russian and British army. The state of the country was also very poor. Famine and Cholera ravaged the countries. People died due to lack of food, proper shelter and drugs/medicines were a royalty that only the very high class people could afford. Mohammad Ali Jamalzadeh in his book Shiraz wrote that – “at the end of WWI, three lethal killers entered Shiraz; they were famine, cholera and the Spanish flu.” Many people died and corpses were seen everywhere in the city. The Bazaar and shops were closed. There was no doctor, no nurse, and no drug." (Reference - Majd MG. Ghahti Bozorg va Marg-o-mir Dar Iran, 1917,1919 [Translated into Persian by M. Jamshidi] Fasnameh Takhasosi Tarikh Moasere Iran. 2006).
- **Impact on Indonesia and neighboring islands** - In Indonesia formerly know as East Indies, the Spanish Flu hit in two waves the first in June to September 1918, while the second hit in mid to late October of 1918. The first case to be reported was in Pangkatan port, North Sumatra, in June 1918, and the source can be traced back to workers from Singaporean plantations. In a few weeks, the Spanish Flu had reached the interior of the country. By June, the virus is estimated to have infected 5 per cent of the total population. The second wave hit more firmly and spread rapidly to the east. By January of 1919 the disease covered the whole of the Dutch East Indies. A report by Burgerlijken Geneeskundigen Dienst, BGD mentions that no part of East Indies was left unscathed.
- **Impact on China** - China was hit in two waves. The first wave hit the country around June 1918 and had very less effect with the majority of young people being affected. The second wave was more devastating and hit the country hard around September. The spread started from South (Shanghai, Guangzhou) to remote parts of North. The country has no official records that show how much of people actually died. It's recorded that over 20% of the southern population was hit by the first wave and that number soared to over 70% by the end of the second wave which was in January 1919. Since China, at that time was very active in terms of trade specifically by the sea route, port cities like Dalian, Tianjin, Yochow, Wuhu, Zhenjiang, Ningbo, Santuao (Fujian), Shantou, Kowloon,

Lappa, Pakhoi, Mengtsz, Heilongjiang, Jilin, Liaoling, Hebei, Shangdong, Jiangsu, Zhenjiang, Fujian, Guangxi, Hubei, Sichuan and Yunnan were hit in varying degrees. There are several reasons that could have brought the virus to the country. Trade routes could have been a very potential and evident cause. Its close relation with Russia could also have been a cause. British army which took part in the World War could also have been a very potential cause. There are rumors however, that Spanish Flu 1918 could have also started from China itself by the working miners and spread to the rest of the world. However it is true that the first reported case of Spanish Flu was in Spain but since the media during those days was warped and in chaos, nothing could be said for sure.

- **Prevention taken by Japan, Korea and Vietnam** - Japan and Korea also had their fair share of affected cases and mortality. However, understanding the gravity of the situation both countries decided to seal off their port routes. After the end of the world war by the late 1918, Japan sealed off most of its ports. Only a few were left open for Naval and military purposes. Japanese controlled Korea however sealed off its ports way back. Japan and Korea have faced pandemics from the Heian era. Therefore traditional medicines also helped to stop the spread of Spanish Flu. Vietnam on the other hand was a very inactive country during those times. The spread of the Flu was mainly attributed to the farming of Pigs and Cows. Vietnam sealed the sale and export of animal products in late September 1918. This greatly helped reduce the spread of the flu.
- **Impact on European countries** – The exact death toll in Europe is not known. There was a ban on media across Europe except for a very few countries, the war ravaged lands couldn't distinguish between deaths due to war and the flu and other reasons accumulated together caused this uncertainty. Estimates suggest that, the number of deaths in Europe alone is somewhat around 8-10 million. Due to no media restrictions being imposed in Spain, it widely spread that King Alfonso XIII, was the first reported case of the flu. The flu then spread across the European continent and ravaged the already ravaged lands. Dense troop movement and very poor conditions of the rural areas helped the spread of the Flu. The following map shows the spread of the Flu in the continent.



- **Impact on US and USSR** - The total deaths including both countries total up to about 1.2 million deaths. The Native Americans and frontline Russians were hit hard. In US, the flu is believed to have its roots at Haskell County, Kansas while in Russia the flu penetrated the war torn country through Belarus and Ukraine. It spread inwards hitting Kiev, Moscow and Petrograd. The economic condition of Russia and its vast army helped propagate the flu to the inlands. Due to cold weather conditions in East Russia, the number of cases in the east is quite low.
  
- **Impact on Canada and Mexico** – The cold weather of Canada helped mitigate the affect of the flu in the country. The flu is believed to have caused about 50000 deaths. The spread of the flu was probably due to the active participation of Canada in the war. Inadequate quarantine measures, lack of coordinated efforts from health authorities and the poor condition of the rural regions helped the flu to spread. In Mexico, the flu entered through the US border and spread like wildfire causing about a quarter of a million deaths. Lack in proper medication and improper hygiene conditions further helped the spread of the flu.
  
- **Impact on Australia and New Zealand** – One of the hardest hit countries due to the flu was New Zealand. Since both Australia and New Zealand mainly consisted of tribal Maoris and Pakeha, who lacked proper medication and hygiene, the flu hit them hard. Although the number of deaths might seem less because of the low population. The flu killed approximately 6500 Pakehas and 2500 Maoris.
  
- **Mortality in India during Spanish Flu of 1918** –  
 The Spanish Flu of 1918 (La Gripe Española), which lasted from January 1918 to December 1920 infected about 500 million people and is believed to have killed about 10% of the infected population and is considered among one of the deadliest pandemics of the world. The origin of the virus is believed to be in France but several other theories exist. Since it was an avian virus and also had the ability to spread via air, it spread throughout the world very rapidly infecting and killing people on its way. The late stages of World War I and enormous troop movements to and from Europe helped the virus spread by leaps and bounds. India was no exception. The death toll of India was way larger than any other country.



The above horizontal scatter plot shows that, India had a death toll of 13.38 million, the highest among all the countries. A comprehensive analysis of Mortality in India is made below.

- Start and Spread** – On 29<sup>th</sup> May 1918, a ship carrying Indian troops returning from the frontlines of the war reached the Bombay port. In those times, the war was at its final leg and thus there was continuous movement of ships in the Bombay port. Among thus humdrum, the ship stayed docked for the next 48 hours. On June 10, seven police sepoy, few of whom were stationed in the docks were hospitalised with the influenza. In about a few weeks the virus spread like wildfire and soon engulfed the whole country.
- Why no precautions were taken?**  
 During the 1<sup>st</sup> World War, the media of the participating nations were kept under wraps. This was done so as to keep the morale of the soldiers high. Since there was very little information about the virus, no one predicted that it would reach India.
- No containment or confinement** – The state of the country during those times were very unstable. The British government ruled with a very firm hand and there were revolts going on every few days. Among this hotchpotch, the working class and lower middle class Indians still needed to work to earn their daily wages. Moreover the famine in 1918 further helped

the spread of the flu. There were not enough medicines in hospitals, absence of skilled doctors and nurses and the absolutely poor condition of the country meant that the flu was neither contained nor checked.

- **Results of the outbreak** – The country suffered heavy losses both in terms of human lives and money. Teenagers and adult people comprised of the majority of deaths. As compared to other nations, India had a very high female mortality rate. This could be because women in those days were mostly malnourished and very poor. India lost about 6% of their total population and Bombay lost about 27% of its population. The absolute inability and blunder caused by the British government in curbing the problem, added fuel to the fire. As an aftermath, the National movement became very strong and led by Gandhi, it gained immense support.

The Spanish flu taught the world that humanity still had a long way to go. Development in medicines, improve in healthcare and hygiene and proper facilities to treat ill people are the need of the hour.