

## **H2N2 flu mortality and vaccination**

“From 1957 until 1968, an H2N2 strain caused between 1 million and 4 million deaths worldwide”. This sentence in the beginning of a paper in Nature is repeated below the picture that illustrated the Comment (1).

Such number of deaths are not unusual, but expected. Only in the US, being conservative, it has been estimated a total of 41,000 deaths per “usual” seasonal flu (2) That’s about 136 deaths per million in the US.

In the 1960' the world population was around three billions. Having equal seasonal flu mortality than in the US we can expect 400.000 deaths per year.

That is, in twelve years (1957-1968) almost 5 millions. And, of course, more people die in the world than in the US for infectious diseases as flu.

So mortality is not a good argument for promoting H2N2 vaccination.

Authors of this Comment (1) should declare their conflicts of interest because what we need are randomized clinical trials of the flu vaccines. The immunologic response is not a guarantee that the vaccine will reduce severe infections and mortality. Demonstration of that benefit requires large randomized controlled trials, which are lacking for both H1N1 and H2N2 vaccines as well as for seasonal flu vaccines (3).

Juan Gérvas, MD, PhD

Visiting Professor National School of Public Health, Madrid, Spain

1. Nabel GJ et al. Nature. **471**, 158-159 (2011)
2. Dushoff J et al. Am J Epidemiol. **63**, 181-187 (2006)
3. Gérvas J et al. Future of flu vaccines: Please may we have an RCT now? BMJ **339**:doi:10.1136/bmj.b4651 (2009)

Conflict of interest

No one relating this topic.