Overview:
- Prospective population based cohort study and mortality study
- Major findings:
  o 1) There is no apparent relationship between H1N1 vaccination during pregnancy and infant mortality after the neonatal period (>6 days post-birth);
  o 2) Confirmed previous findings, or lack thereof, that H1N1 vaccination does not cause adverse fetal outcomes even after adjusting for familial factors (which previous studies did not include).

Abstract
- The study question says the article is focused on “mortality in offspring of mothers who had influenza A(H1N1)pdm09 vaccination during pregnancy” – but after reading through the article, the purpose of the study was more focused on offspring mortality beyond the neonatal period.
  o I think this time piece should be more emphasized (or at least mentioned) in the abstract due to the abundance of research that has been done previously on vaccinating pregnant women (for the flu) and its possible link to infant mortality.

Introduction
- Elaborate:
  o Is there a particular reason why Sweden opted for the AS03 adjuvanted monovalent vaccine, Pandemrix (GSK), over other available vaccines for A(H1N1)pdm09?
    ▪ Was there any evidence that showed it would be more effective or safe in protecting pregnant women? Or, was it a cost-driven choice since it was offered free of charge to all Swedish residents?

  - Good job providing rationale for adjusting for potential confounders such as familial factors
  - Clearly calls attention to the lack of research focused on offspring mortality beyond the first week of life – provides clear research questions to address 1) the potential link between A(H1N1)pdm09 vaccination and offspring mortality and 2) the possibility that adjusting for familial factors in their analysis may provide different results than those already found in literature

Methods
- Study type: prospective population based cohort study (in 7 healthcare regions in Sweden based on vaccinations from 10/2/09 to 11/26/10)
  - Issues:
First line of Methods: Where did you get the individual data on the vaccinations administered to link with the pregnant women information from the Swedish Medical Birth Register?
- Sampling was OK for this study
- Statistical analysis was appropriate for this study: Cox Regression and hazard ratios
  - Provides survival probabilities and adjusted cumulative hazard ratios as well as hazard ratios broken down based on time of vaccination
  - 1.0 = null?
    - Give an one-liner explanation of hazard ratio interpretation (indicating increased or decreased/no risk)

Results
- Issues:
  - Why was there a difference in length of follow up between the vaccinated and unvaccinated cohorts?
- A graphic or survival curve might be helpful to supplement the information in Table 2.

Discussion
- Issues:
  - If a previous Swedish study using the same population reported that <12% of mothers had a record of vaccination, what was the rate of vaccination you came to find? Was it the same or different (since you concluded there was a non-significant 17% risk reduction compared with their 23%)?
  - The questionnaire study by van der Maas cited in the paragraph before “Strengths and limitations of study” – is this a good study to cite since questionnaires can be affected by reporting bias?
  - Strengths and limitations of study: What was the “large statistical power” for this study?
- Clear answer to their initial research question: “…maternal vaccination against influenza A(H1N1)pdm09 during pregnancy is unlikely to increase the risk of stillbirth.”

Conclusion
- This section was very short: Is there anything else you can add to this terms of future directions or other considerations based on what was said in the discussion such as:
  - Teasing out whether there is a protective effect that is greatest shortly after birth that is not affected by selection bias of mothers undergoing vaccination?
  - The non-significant association result between vaccination in the 3rd trimester and early neonatal death that was estimated based on only a few cases → Is this something that you would focus on in the future with a greater sample size?

Overall impression: OK – information and findings reported is not entirely novel and confirms results already found in literature.