Author’s response to reviews

Title: Pneumococcal serotype evolution in Western Europe

Authors:

Myint Tin Tin Htar (myint.tintinHtar@pfizer.com)

Dina Christopoulou (dina.christopoulou@pfizer.com)

Heinz-Josef Schmitt (Joe.Schmitt@pfizer.com)

Version: 1 Date: 10 Sep 2015

Author’s response to reviews:

Reviewer 1:

1. It will be easier for reader to capture the main conclusion if the authors could list more datasets as a table or figure. For example, the overall incidence rate of IPD is supposedly a very important parameter. Could the authors add a table or figure for it? □

   ==> Thank you. A table on incidence of IPD was added and contents were amended according to the table. We have added some more texts for some countries to be compliment with table 1 added.

2. The authors mainly listed the PCV13 serotype change in table 1 and 2. Could the authors also list PCV7 serotype change pre and post-PCV7 introduction as another table?

   ==> In recent publications we included, they described more 6 additional serotypes or PCV13 serotypes compared to PCV7 serotypes. However, incidence of PCV7-IPD were described /added in the text whenever available….

3. It is not clear what the criteria are to include a county in the table. Some countries discussed in the main text are not listed in either table.

   ==> only the countries either with available incidence data or combined PCV13 serotype proportion were added in the table. Combined PCV13 serotype distribution or such data were not calculable in a number of papers.

4. Is it possible to summarize all the data from countries with similar vaccine usage and thus have an overall glimpse of the serotype change? □

   ==> countries were categorized according to their PCV usage: Countries in which only PCV13 used, Countries in which only PCV10 used and Countries in which both PCV13 and PCV10 used in the text, and tables.
5. On page7, line160, "non-PCV13 serotype" supposes to be "PCV13 serotype"?

   ==> Thank you, corrected as “PCV13”

6. On page7, line166, IPD cases ? due to serotypes 23B and 15A increased? □

   ==> Thank you corrected as “IPD due to serotypes 23B and 15A increased”

7. On page9, line204, children < 2 years of age. But in the table, the children age for UK is <5.

   ==> Thank you. Corrected as “<5 years”

8. Could the authors explain or discuss why in older populations, there is less change of the most prevalent serotypes after PCV13 usage? □

   ==> The extent of reduction of vaccine serotypes in older population (indirect effect) was lesser in the early period after the introduction of PCV13 compared with later periods, and in countries with lower paediatric vaccine uptake. After 1-2 years after introduction in France, Norway and Switzerland, PCV13 serotypes accounted for 42-62% of all IPD while only 21% in the UK at 4 years after PCV13 introduction. Notes added in discussion

Reviewer #4: It would have been plausible to avail a dendrogram or phylogenetic tree showing the different evolution of Pneumococcal serotypes in Western Europe.

   ==> It is very interesting. Unfortunately we did not cover this in our paper.

Note to editor.

Thank you for the quick review. We had revised the manuscripts and added the requested data in a table as well as in the text wherever appropriate.