Reviewer's report

Title: Time Series Analysis of Reported Cases of Hand, Foot, and Mouth Disease from 2010 to 2013 in Wuhan, China

Version: 1
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Reviewer: Junni Wei

Reviewer's report:

This paper analyzed the time series of reported cases of HFMD in Wuhan, China, and assessed the association between temperature and notified cases of HFMD. The authors found some interesting results could provide useful information for HFMD prevention and control in the future. However, there are some concerns for the authors to consider to improve the manuscript.

Major concern

1. HFMD infection occur mainly in children, whether the author considered this in the analysis.

2. The information of study area should be under a separate subtitle in methods section. If the author investigate the role of temperature on HFMD, the temperature information should be added in study area. Such as annual average temperature, the variation range in summer and winter.

3. The author can collect the daily temperature data, and log on the system of CISDCP, why the author do not analyze the daily data rather than month data. In addition, whether the lag effect of temperature was considered in analysis. And the relationship between meteorological variables (temperature, humidity, hour of sunshine, etc.) and HFMD have been studied in many literatures recently, but the author only selected the mean temperature variable. I think the author should add the maximum temperature and minimum temperature at least.

4. The risk of infection was identified by epidemiological index, eg. relative risk (RR). But in figure 5, the Y axis indicates “Average EV71 infection occurrence (NE)”, and there are not corresponding explanation for NE in methods section. Could the author match the results from figure 5 and two peak?

5. The author did not state the limitations of the work clearly.

Minor concern

1. Abstract#The sentence “We used a time series analysis.” is incompleted in the method section.

2. The clinical diagnosis of HFMD was based on the guideline in 2008, was the guideline not updated in 2010?

3. Please confirm that whether the name and productor of "SPSS version 17.0J software (SPSS, Japan) " is right.

4. If the author stated they performed the correlation analysis between EV71 data
and temperature data, why was not related to CA16.

5. Figure 2, what means are the six dominant periodic modes? Six peaks in one year? Data are from January 2010 to June 2013, the starting point of x axis is from 2009 and ending in September 2013, could you explain the reason of drawing?

6. Page 10, line 4, “two peaks, one in summer month (June, July, or May) and the other in a winter month (December)”, are you sure that May is behind June and July in every year? The expression is not easy to be understood.

7. The conclusion is not very appropriate. Controlling HFMD is a complex work, and not because a certain temperature.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests