

OIE DISEASE TIMELINES DATA ANALYSIS

Baxarias, Marta

Acknowledgements: Alberto Allepuz

Introduction:

The WAHID (World Animal Health Information Database) interface provides access to the semi-annual reports stating the health condition of the OIE-listed [1] different diseases in each Country.

The current study seeks to analyze OIE data in order to:

- ❖ Describe the spatial **tendencies** of the different diseases.
- ❖ Identify some **factors** which can determine the presence of this diseases.

Material and methods:

Since 2005 until 2013, data was taken of 12 diseases: Anthrax, Bluetongue, Bovine tuberculosis, Contagious bovine pleuropneumonia, Echinococcosis, Foot and mouth disease, Highly pathogenic avian influenza, Gumboro, Newcastle, Peste des petits ruminants, rabies and sheep and goat pox.

A data base was created with the following diseases, the territory, the level of income of each country or if it is an island or not.

Results:

It was observed that in all the eco-regions existed an elevated heterogeneity (Fig. 1). Moreover, in all of them (with the exception of Oceania) there were countries that reported between 0-2 diseases to 8-10.

It was noted as well, that the eco-regions with more diseases per country were situated in Africa-Middle East and Sub-Saharan Africa (the less wealth areas) (Fig. 2) [2]. In this eco-regions all the diseases studied were reported.

A lower number of diseases were reported in Island countries (Fig. 3).

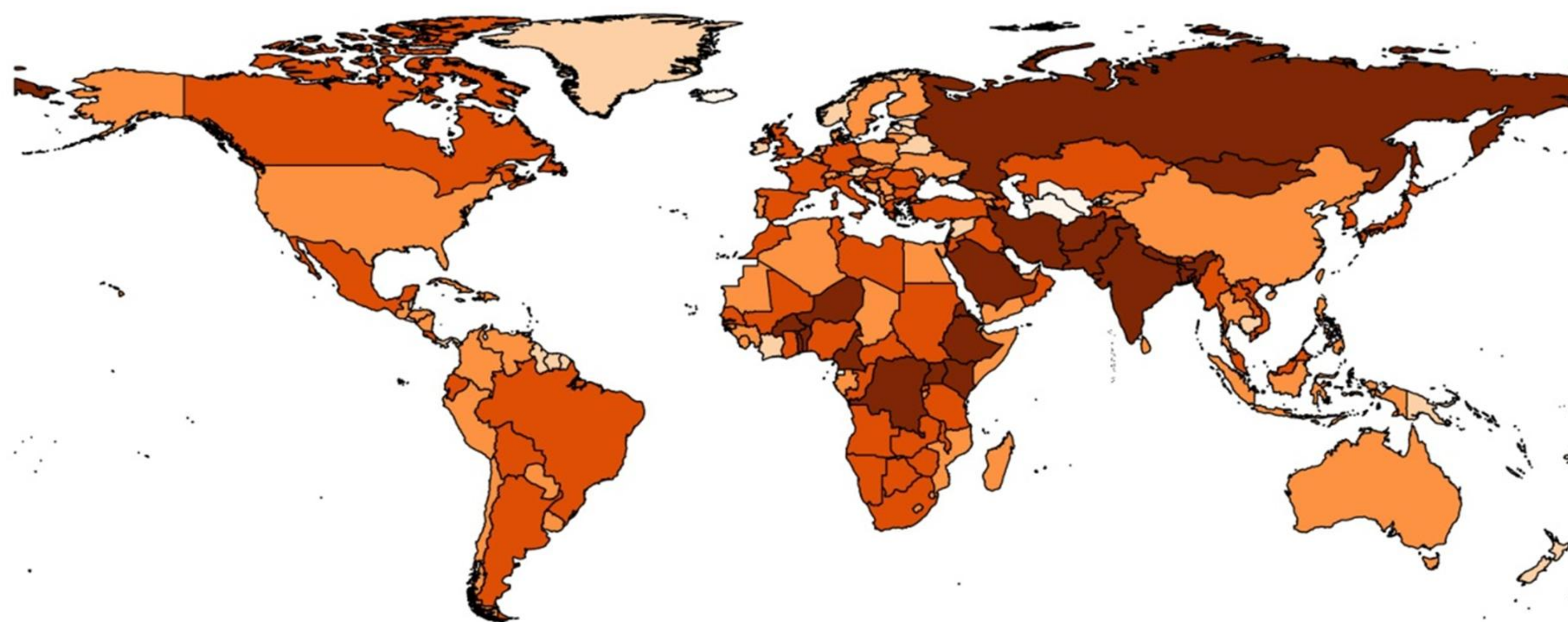


Fig. 1. Number of diseases reported by the countries during the study period. (2005-2013)

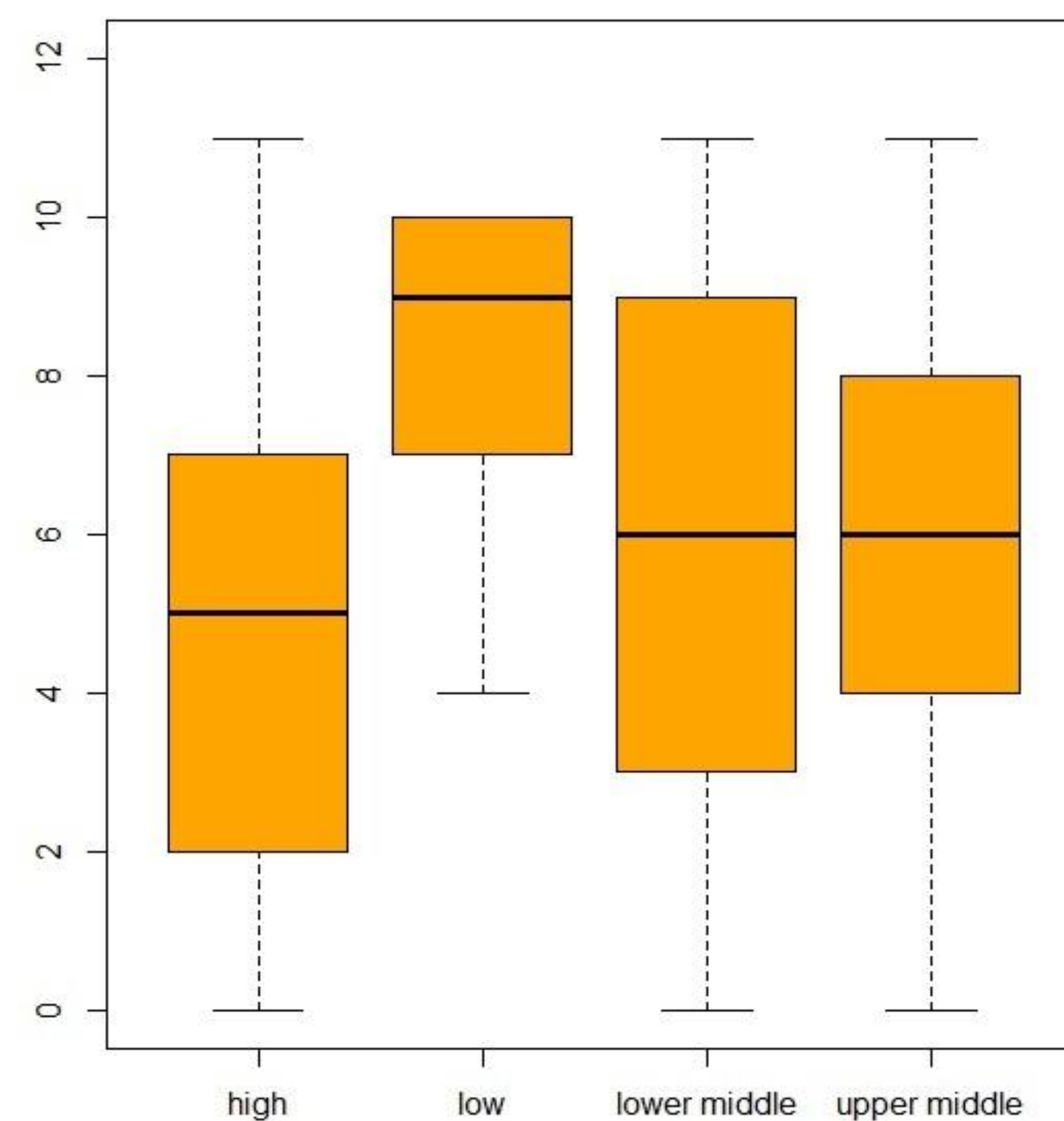


Fig. 2. Number of diseases reported according to the country wealth during the study period. (2005-2013)

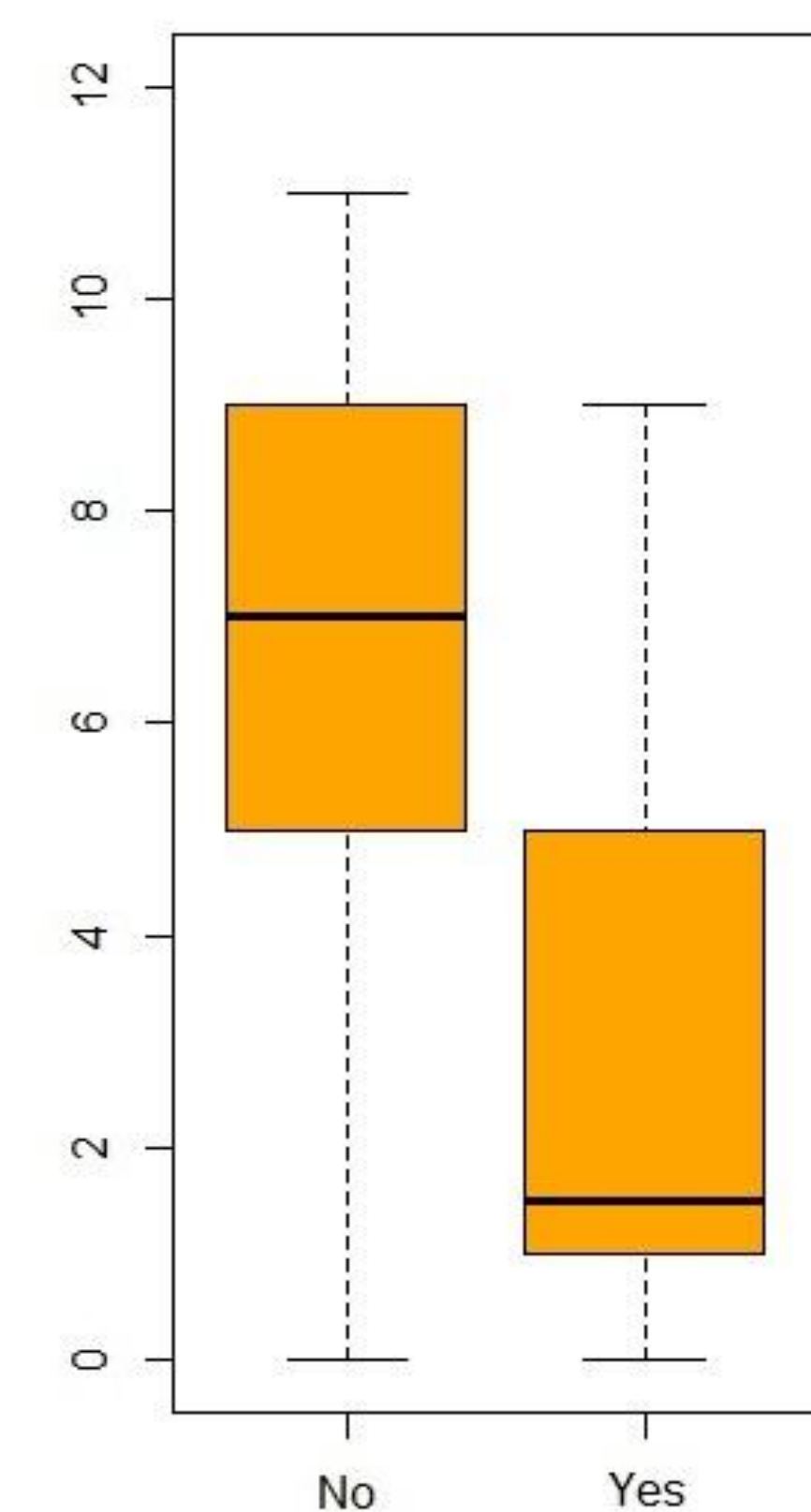


Fig. 3. Number of diseases reported depending on the situation of the country (an island or not) during the study period. (2005-2013)

Discussion:

The majority of the studied diseases were reported in all the eco-regions. This information suggests that it does not exist an important link between a eco-region and a disease. In fact, the presence (and report) of a disease seems to be linked with the correspondent country capacity to detect it, control it and/or eradicate it.

Regarding the economical factor, those continents with a greater number of poor countries (Asia and Africa) report a larger number of diseases. Probably due to the different capacity to undertake the necessary measures for the control of diseases as a wealthy country has, with a good economic support and a good veterinary services structure.

The factor island seems to be important, either due to a lower number of animals or inhabitants, greater bio security control facility or space between borders.

Conclusion:

The current study has shown that the ecological characteristics of the region are not a relevant factor to control diseases, with the exception of the advantages of being an island compared to the control.

The own country capacity of undertaking measures according to their level of income, as well as the interest in particular diseases are the fundamental factors that determine the presentation and control of diseases.

References:

- [1] Anonymous. June 30, 2014. WAHID Interface. Available: http://www.oie.int/wahis_2/public/wahid.php/Countryinformation/Countrytimelines
- [2] Anonymous. July 7, 2014. Countries and economies. Available: <http://data.worldbank.org/country>