The OIE`s World Animal Health Information System (WAHIS) as a Tool for Monitoring Progress in the Global Strategy for the Elimination of Dog-Mediated Rabies

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INTRODUCTION Human rabies causes a significant disease burden and is preventable through vaccination of dogs. Consequently there is significant international effort for global elimination of dog-mediated human rabies by 2030. An important tool in this effort is the OIE disease reporting system, WAHIS. Here we present the global rabies situation from 2005 through 2016 and highlight areas of improvement to achieve optimal disease reporting.

MATERIAL AND METHODS The trend of the percent of reporting countries reporting rabies **in dogs** between 2005 and 2016 was assessed using data from WAHIS. Statistical significance was determined using the Spearman rank correlation test. The recent situation (2014-2016) **in humans** was evaluated using combined data from WAHIS and from the World Health Organization (WHO) Global Health Observatory. Results were broken down by region.

RESULTS Based on WAHIS, the percent of countries reporting rabies in dogs significantly decreased in Europe from 43% in 2005 to 21% in 2016, (rho= -0.8, p<0.001). Several countries in the Americas and Europe have achieved freedom from dog-mediated rabies, while the disease remained absent in Oceania over the period of analysis. However, in Africa and Asia (including Middle East), the situation remains unchanged with between 60% and 84% of countries reporting canine rabies from 2005 to 2016. These two regions were similarly highly impacted by rabies in humans from 2014 to 2016 with 64% of the countries in Africa and 54% in Asia reporting cases.

DISCUSSION Dog-mediated rabies eradication will be challenging particularly in Africa and Asia. WAHIS is an essential tool for capturing surveillance data to measure the progress toward elimination of dog-mediated human rabies. To improve data quality, the OIE initiated an upgrade of WAHIS to WAHIS+ in 2016 that includes building links with human health databases, integrating genetic information for a better understanding of disease epidemiology and facilitating access to data and data dissemination. These new features will significantly improve the global reporting on rabies, improve data sharing and analysis to support policy decision making.
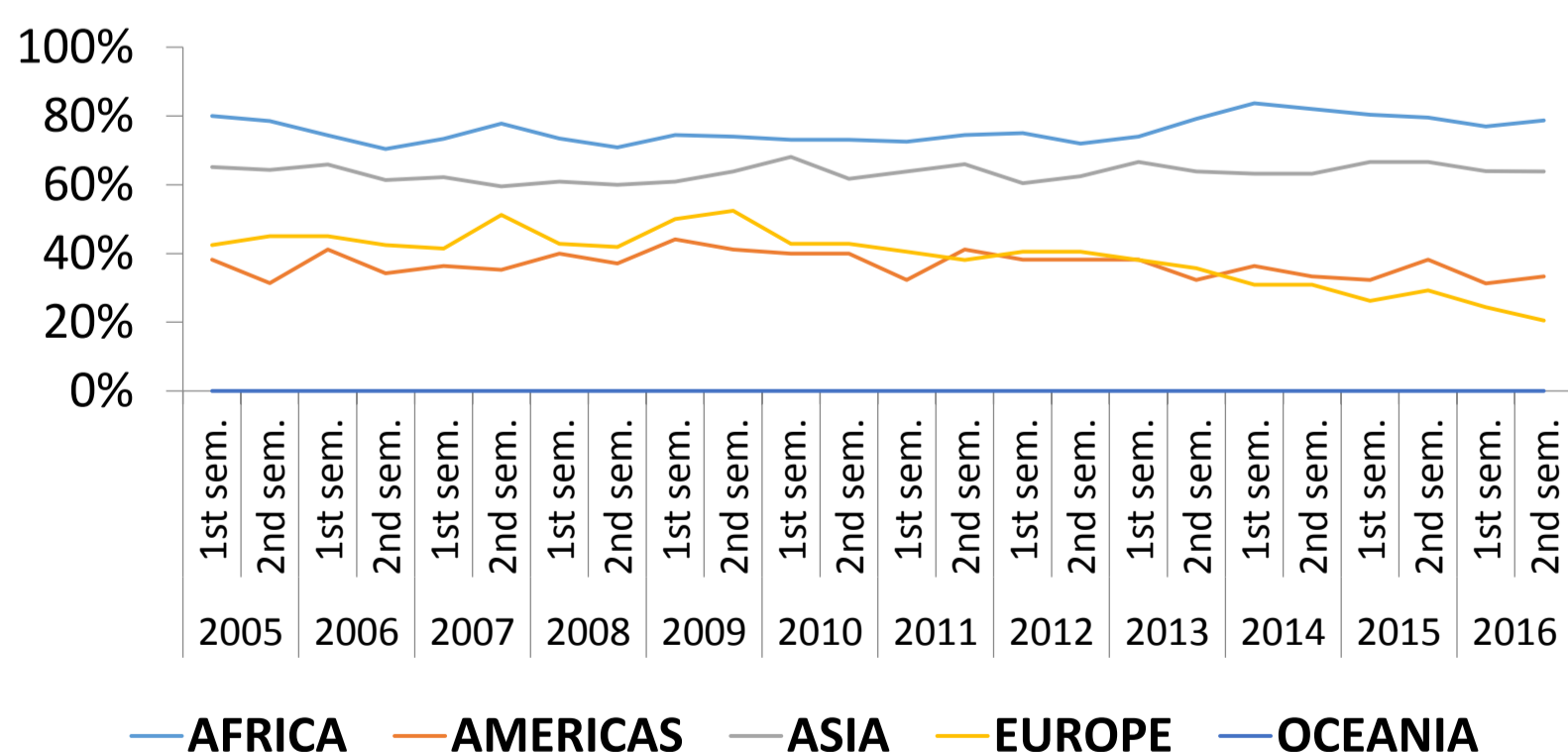

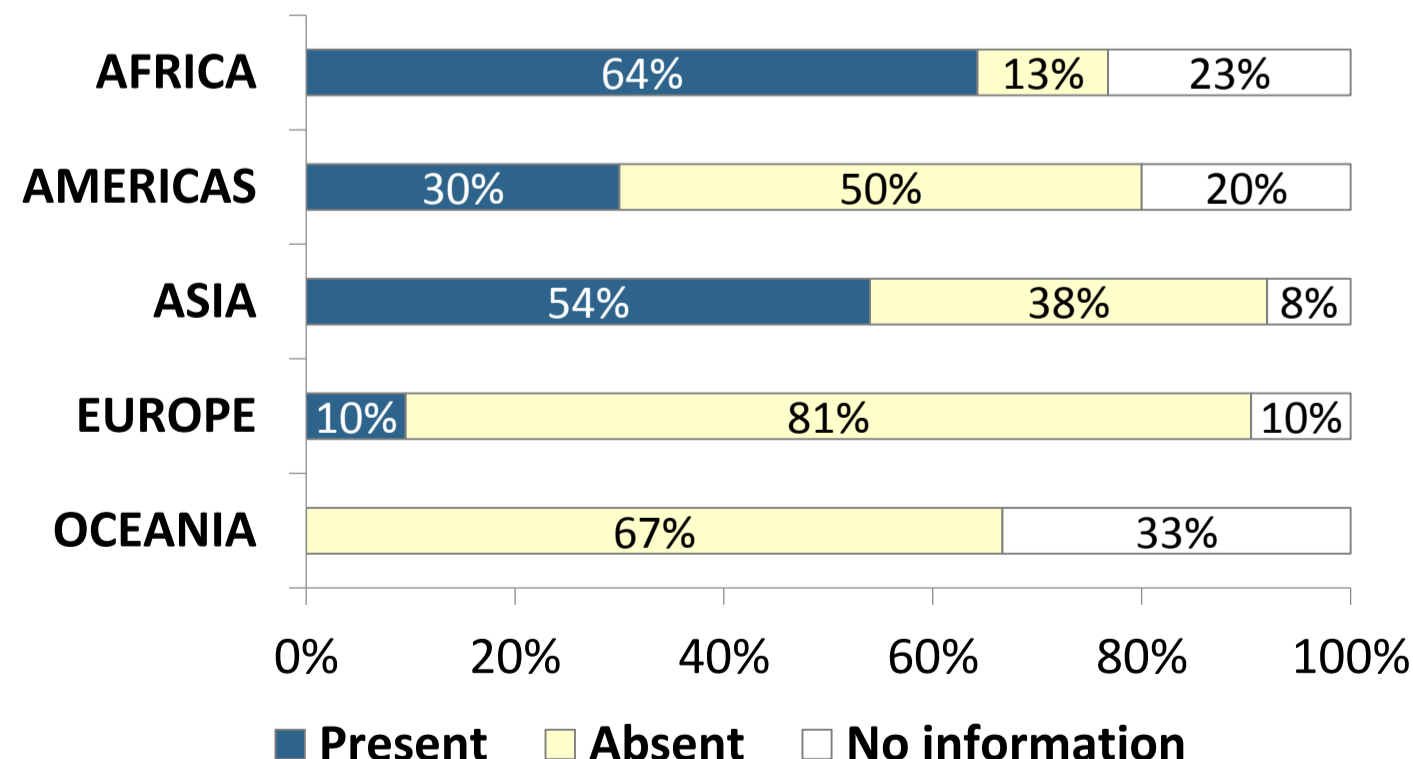**Figure 1.** % of countries affected by dog rabies, by region, from 2005 to 2016

Figure 2. % of countries affected by human rabies, by region, from 2014 to 2016

OIE: World Organisation for Animal Health ; WHO : World Health Organization ; FAO : Food and Agriculture Organization of the United Nations ; GARC : Global Alliance for Rabies Control ; WAHIS : World Animal Health Information System

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