Abstract:

Purpose:
New methods are needed for the economic evaluation of animal health surveillance systems. Little research has been conducted on non-monetary costs and benefits incurred by public and private actors related to their participation in such systems. Nonetheless, these factors may have a critical influence on passive surveillance, which precisely relies on a chain of decentralized information reporting decisions.

Methods:
A new methodology was tested, using the case of Highly Pathogenic Avian Influenza (HPAI) surveillance, in three poultry production areas of Vietnam. Poultry farmers were gathered in focus groups to rank their concerns and prioritize their options of disease management. Semi-structured interviews in combination with impact flowcharts were used for qualitative identification of non-monetary constraints. A participatory tool based on conjoint analysis was built to reach a quantification of these non-monetary attributes.

Results:
Different alternative responses to HPAI suspicion occurrence ranked first in farmers’ priorities, including treatment and rapid sale of the birds. Five types of non-monetary constraints on disease reporting were identified in semi-structured interviews, including uncertainties about outcomes of reporting, transaction costs and impact of disease notification on poultry market prices. On the other hand, help of authorities in disease management was considered a benefit. The adapted conjoint analysis was tested on 23 broiler producers. The estimated values ranged from 0 to 2979 USD (cost related to the responsibility in market impacts), from 0 to 1081 USD (transaction costs) and from 0 to 829 USD (benefits of support in disease management).

Conclusions:
There are non-monetary costs and benefits associated by actors with HPAI suspicions reporting in Vietnam. These components of decision making are complex but can be quantified using a combination of conjoint analysis with participatory tools.

Relevance:
The developed methodology can successfully contribute to passive surveillance evaluation. The quantification tool needs to be further implemented in a wider range of sanitary and production contexts.