Reducing antimicrobial use and improving management strategies in farrow-to-finish pig farms: an economic evaluation

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Introduction

High antimicrobial use on pig production. Farmers are encouraged to reduce antimicrobial use:
1. Responsible antimicrobial use
2. Shift to use preventive measures

Objective

Estimate the farm-level costs and benefits of reducing antimicrobial use and simultaneously improving the biosecurity level and herd management.

Materials and methods

n=48 advised Flemish farrow-to-finish pig farms
n=59 control Flemish farrow-to-finish pig farms from FADN3
3 Farm accountancy data network

- Propensity score matching of advised with control farms to examine the effect on technical parameters
- Estimation of the costs of biosecurity measures, antimicrobial and vaccinations use
- Use of a production economic model to estimate the benefits acquired

Interim results

Bar-plot of the difference-in-difference of technical parameters between advised and control farms

Box-plot of the change on the costs (€) of biosecurity (internal and external), vaccination and antimicrobial use between visit 1 and 3

The net benefit increased on average € 5.36/average present finishing pig/year on farms which have implemented the advised interventions

Conclusion

Farmers can shift from preventive antimicrobial use to implementing biosecurity strategies without reducing productivity with a positive profit

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