



# Pilot Study of the Financial and Practice Protocol Impacts of Canine Influenza Virus (H3N2) Outbreaks in Example Veterinary Practices

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## ABSTRACT

Five veterinary practices that had experienced canine influenza (H3N2) outbreaks were surveyed about the direct and indirect financial impacts of the outbreak on their facility. All facilities reported some financial impact, with the median value calculated at \$4766/practice. This study highlights the true financial value of biosecurity by demonstrating the cost of the absence of adequate infection control.

## BACKGROUND

Until recently, canine influenza outbreaks have been confined to Asia and had not been reported in North America. This changed in 2015, when the viral disease was reported in Chicago, and the H3N1 virus has since gone on to infect thousands of dogs across the American Midwest. There have been many anecdotal reports of the financial impacts resulting from canine influenza outbreaks in veterinary practices; however, few efforts have been made to quantify these effects. The objective of this study was to characterize these financial impacts, to help paint a picture of the true cost of a canine influenza outbreak.

## STUDY

Invitations were sent to 30 facilities within a 50-mile radius of a major US city that had experienced an outbreak of canine influenza. Requirements included that the facility had experienced a H3N2 outbreak in the last 12 months, and that the facility dealt primarily with a small animal caseload. Of the 30 facilities invited to participate, 13 accepted. Each facility was sent a questionnaire with relevant questions concerning the financial impacts of

their outbreak on their facility. The data was subsequently organized into three categories:

- a) **Direct financial impacts** – i.e. lost revenue, biocontainment, additional wages, costs of treatment
- b) **Indirect impacts** – i.e. interruptions to daily practice operations, loss of reputation and staff morale
- c) **Protocol responses** – i.e. biosecurity and outbreak prevention protocols in response to an outbreak

## RESULTS

Five of the 13 met the eligibility criteria and were included in the data analysis. The findings were as follows:

- a) **Direct impacts** – the median total direct cost/practice, normalized by the number of full-time veterinarians in each practice, was \$4766.
- b) **Indirect impacts** – all facilities reported interruption of daily practice operations. One facility (per outcome) reported damage to their reputation and to staff morale. One facility reported concern about the capacity to contain and resolve the outbreak.
- c) **Protocol responses** – 3/5 facilities instituted vaccination against H3N2. 2/5 facilities reported increasing client education efforts and reduced staff productivity.

## CONCLUSION

This study helps characterize the less obvious impacts of canine influenza outbreaks. In addition to the direct costs of a canine influenza outbreak, the downstream repercussions were also highlighted. This study can certainly help communicate the importance of biosecurity and infection prevention as a worthwhile investment to prevent these financial costs associated with outbreaks.

## IMPLICATIONS FOR AHP

This study makes a compelling case for the need to prevent disease outbreaks, by bringing the less obvious impacts to veterinary facilities to the forefront of the discussion. This content is hugely valuable for us to educate around the true cost savings of implementing a rigorous biosecurity protocol. While this study does not differentiate AHP from competitors, this type of education will resonate with end users and make biosecurity and disinfection top of mind.

## REFERENCE

Mwacalimba K, Litster A. (2018). Pilot study of the financial and practice protocol impacts of canine influenza virus (H3N2) outbreaks in example veterinary practices. *Prev. Vet Med.* 151: 1-4.

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