

**Table 1.** Unconditional associations between the outcome (virus isolation positive) and the four explanatory variables

Variables	AIV positive	No. of sample	Prevalence (95% CI)	P-value
Sector				
Backyard	32	1,056	3 (2.1 - 4.3)	Reference
Bio-farm	7	1,200	0.6 (0.2 - 1.2)	<0.001
LBM	94	660	14.2 (11.7 - 17.1)	<0.001
PDS	141	681	20.7 (17.7 - 23.9)	<0.001
Species sampling				
Chicken	100	1,801	5.6 (4.5 - 6.7)	Reference
Duck	157	1,575	10 (8.5 - 11.6)	<0.001
Muscovy duck	16	189	8.5 (4.9 - 13.4)	0.106
Environment	0	18	0 (0 - 18.5)	0.97
Goose	1	14	7.1 (0.2 - 33.9)	0.266
Round				
1 (2016)	107	1,814	5.9 (4.9 - 7.1)	Reference
2 (2017)	167	1,783	9.4 (8.1 - 10.8)	<0.001
District				
Binh Minh	61	910	6.7 (5.2 - 8.5)	Reference
Long Ho	61	909	6.7 (5.2 - 8.5)	0.843
Mang Thit	53	867	6.1 (4.6 - 7.9)	0.612
Tam Binh	99	911	10.9 (8.9 - 13.1)	0.004