



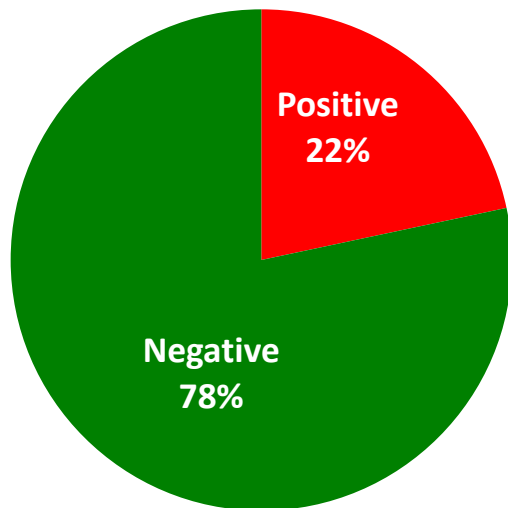
CEIRS Update



- 32 conveniently selected farms
 - Illinois, Indiana, Iowa and Minnesota
- 30 nasal swabs on a monthly basis (“group”)
 - Healthy 10 week-old pigs
 - Tested for influenza by RRT-PCR
 - Virus isolation and subtyping
 - Recorded pig age, group clinical signs and vaccination history
- Repeated measures logistic regression
 - Association of group positive status with season, age, clinical signs and year

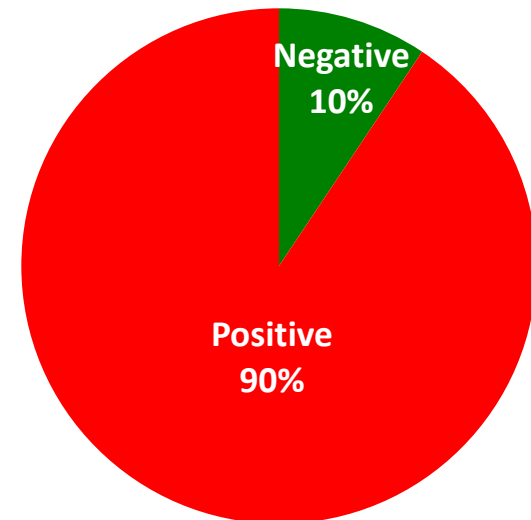
- Total of 16,170 collected (Jun. 2009 – Dec. 2011)
 - 746 (4.6%) nasal swabs tested positive
 - 178 viruses isolated

Group level

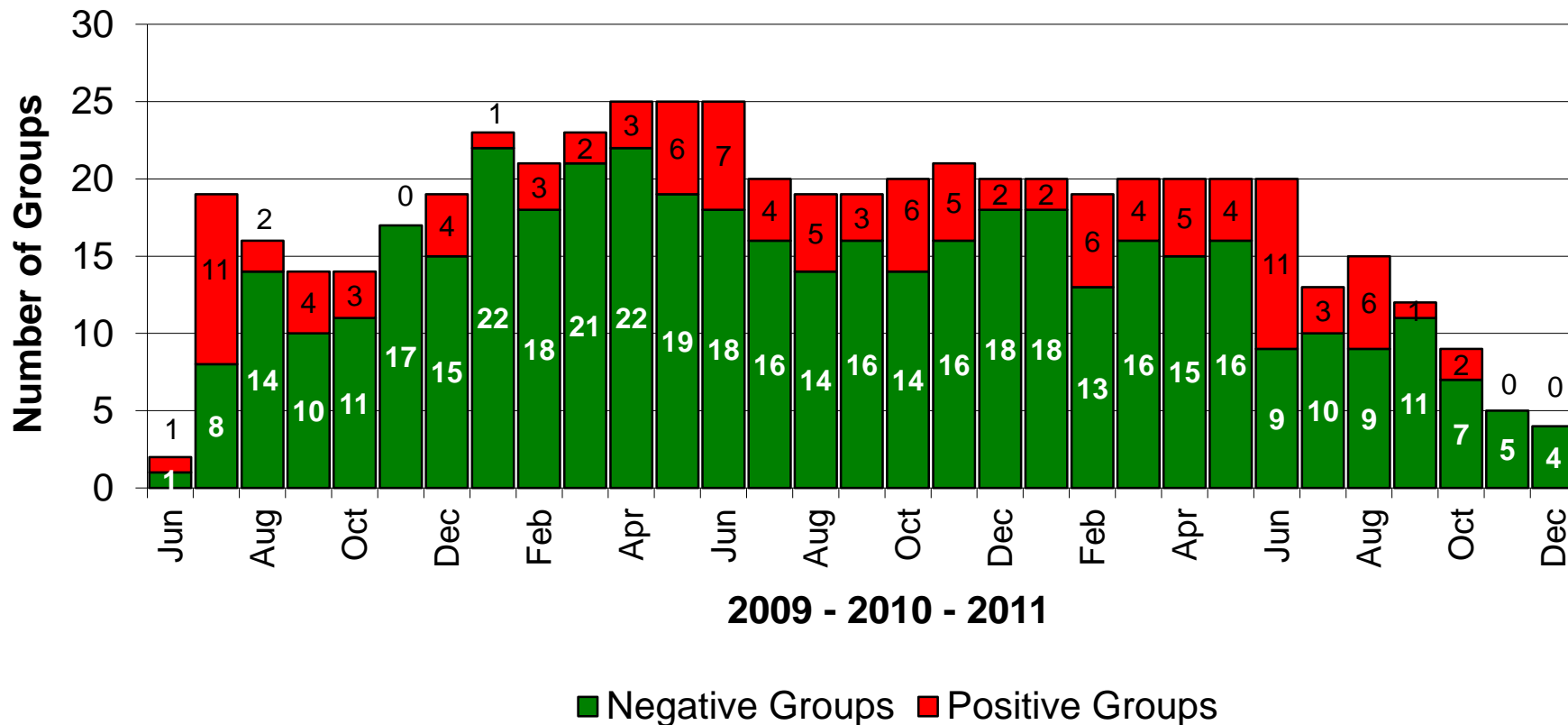


n = 540

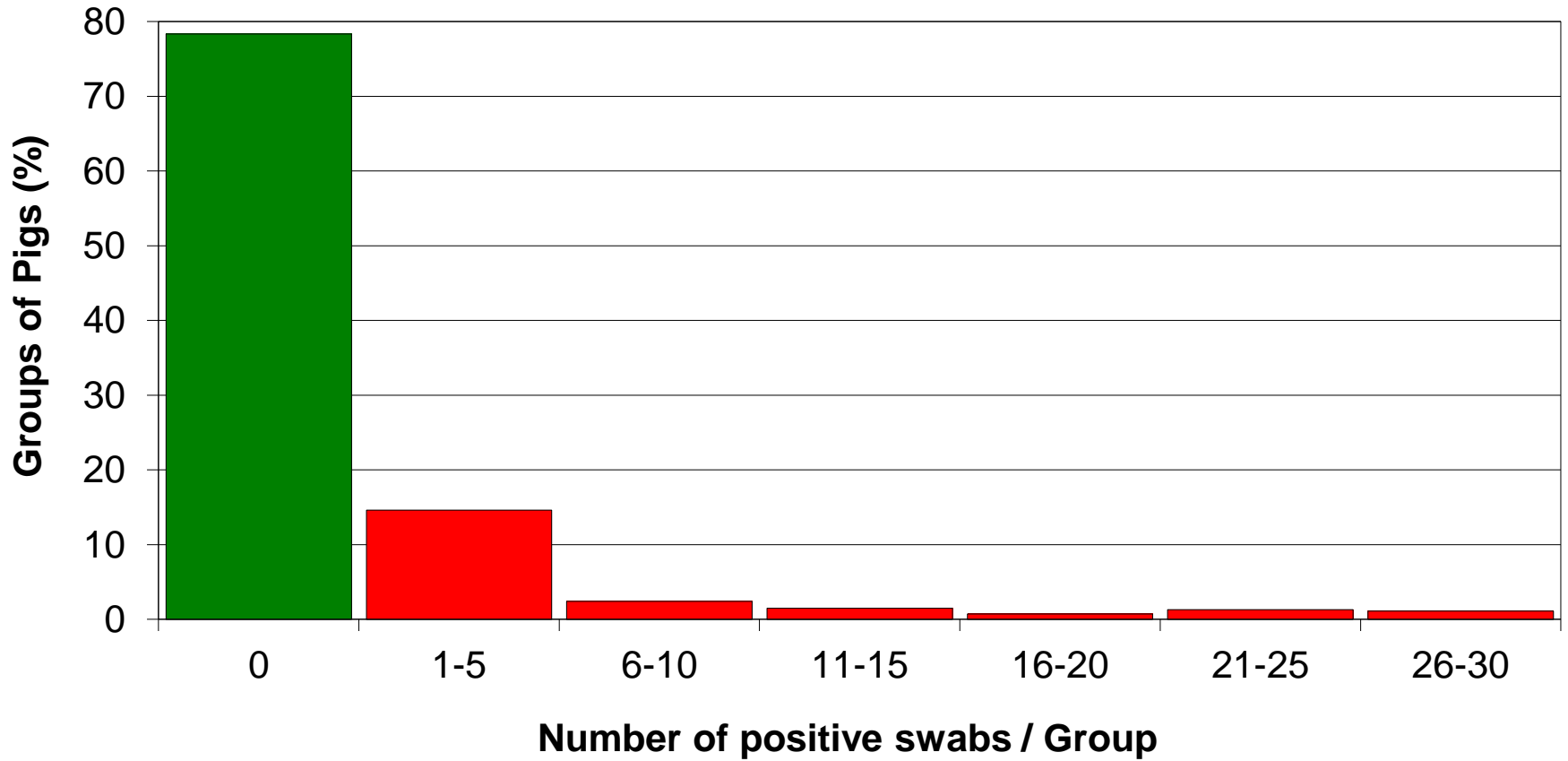
Farm level



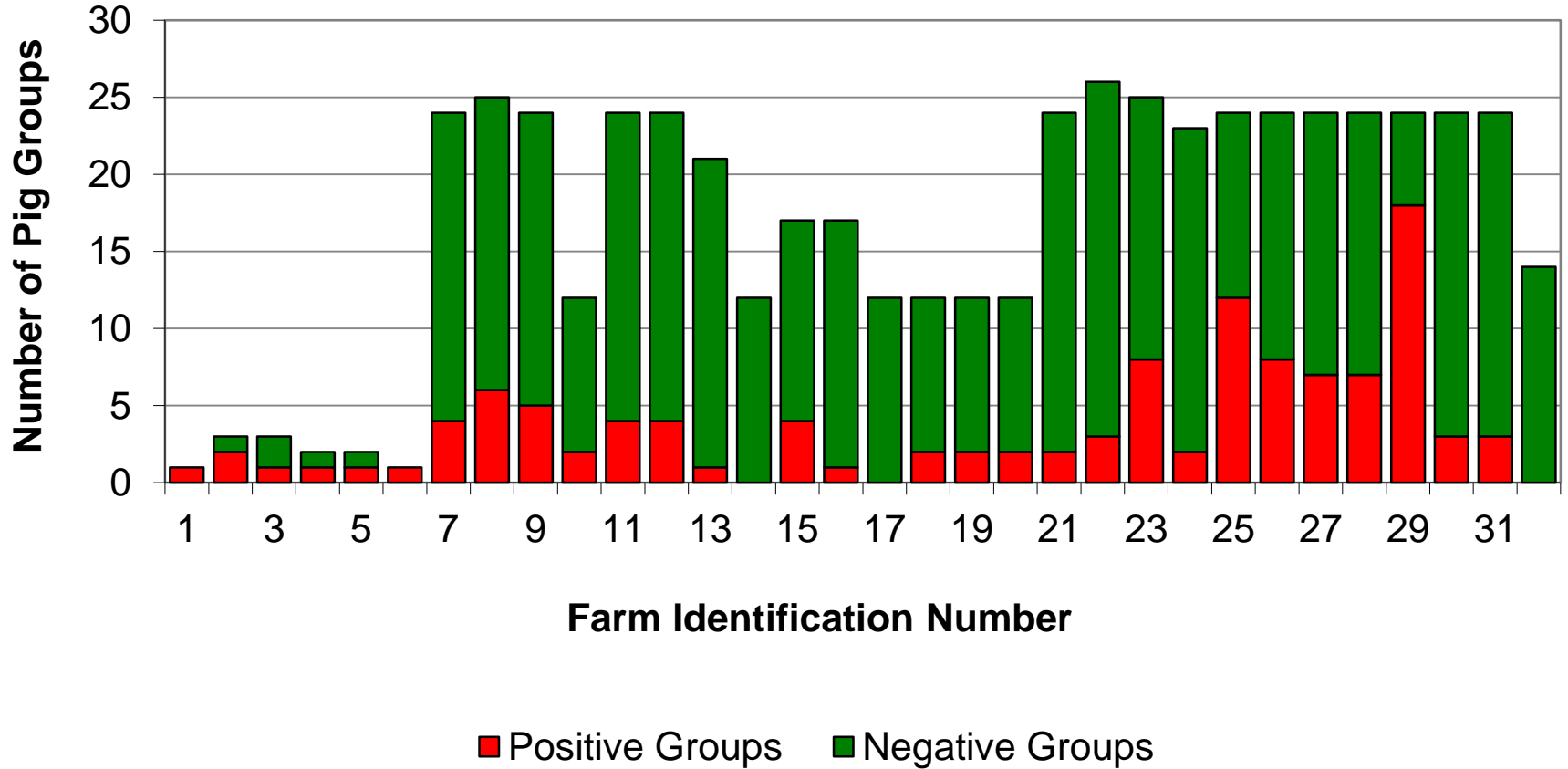
Positive / Negative Groups by Month

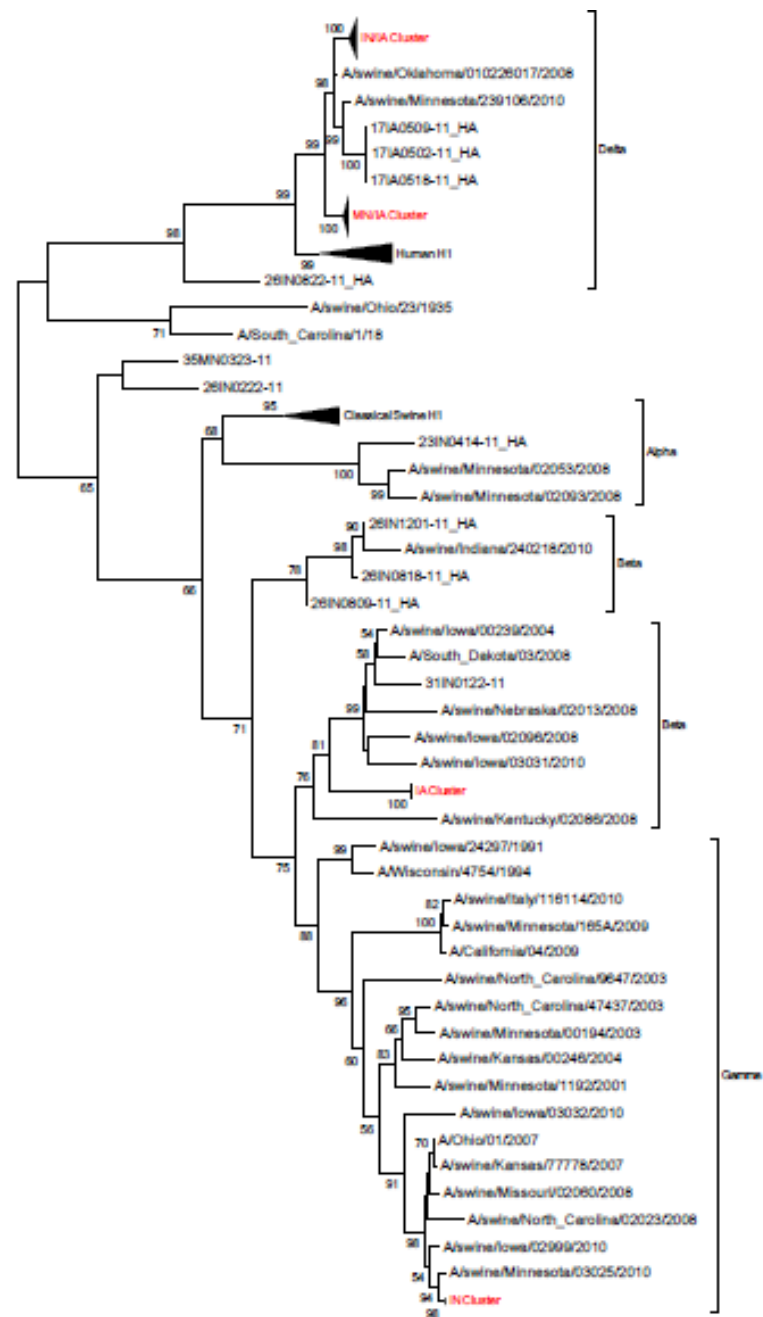


Number of Positive Swabs Per Group



Number of Positive Groups Per Farm





0.02

- Some of the farm risk factors not associated with influenza group status:
 - Sow vaccination
 - Number of barns on-site
 - Barn ventilation
 - Number of pig farms within a mile
 - Number of employees
 - Presence of other animals at the farm

Logistic regression (univariate)

- Farm risk factors significantly associated with influenza group status

Parameter	Odds Ratio	95% CI
Farm type		
- Finisher (Referent)	-	-
- Farrow-to-finish	3.05	1.56-5.95*
- Wean-to-finish	0.89	0.44-1.80
- Nursery	16.69	5.34-52.18*
- Gilt developer unit	1.11	0.31-3.94
- Nursery-finisher	0.78	0.33-1.82
Pig flow		
- Continuous flow (Referent)	-	-
- All-in All-out by barn	0.309	0.14-0.66*
- All-in All-out by site	0.359	0.14-0.88*
Gilt source		
- Born at breeding site and never moved from that site (Referent)	-	-
- Born at breeding site and moved to another site and later returned	0.175	0.04-0.63*
- Multiplier	0.256	0.09-0.68*

* $P < 0.05$



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