

At the Agricultural Interface: Swine Shows and the Spread of Influenza

Monitoring pigs at county fairs could help prevent the next influenza outbreak



Swine can be co-infected with influenza A viruses from multiple host species at once, making them a mixing vessel for viral reassortment and creation of novel strains.



County fairs have hundreds of pigs commingling in the same barn for up to a week. These conditions contribute to potential viral amplification, reassortment, and spread.



CEIRR researchers used samples from show pigs and their handlers to reveal that reducing the amount of time pigs spend in show barns cuts infections in both pigs and humans.

Shortening exhibitions to under 72 hours drastically reduced influenza prevalence in swine. Fairs that adopted this policy saw decreased post-show cases of influenza in exhibition swine.



Shortening Duration of Swine Exhibitions to Reduce Risk for Zoonotic Transmission of Influenza A Virus

PMID 36084650

Surveillance at a Glance

CEIRR Investigators have sampled 103,483 swine in North America, across 18 states.

Over 5,000 swine-origin influenza viruses have been fully sequenced.



3,000+

county fairs across the country



150M

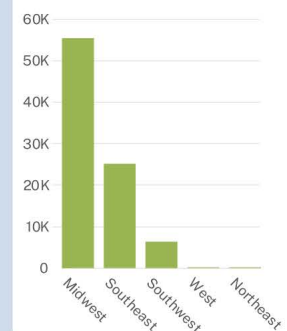
attendees each year



83%

of influenza-positive pigs show no clinical signs

CEIRR Swine Samples by US Region



The 2009 pandemic, which led to millions of infections worldwide, resulted from reassortment between swine, avian, and human influenza viruses.



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