

Morrison Swine Health Monitoring Project – 2017 Summary

Cesar A Corzo, Principal Investigator

- We will remember 2017 for the loss of Dr. Morrison, in whose honor the program is now named. Dr. Andres Perez led the transition of the program and now Dr. Corzo, the new Leman Chair in Swine health and Productivity is leading the project.
- MSHMP acknowledges and thanks all participants for their willingness to share their data to support the US industry.
- The Swine Health Information Center (SHIC) has been instrumental for the execution of this project.

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- Four new participants joined MSHMP increasing the representativeness of the project by adding 64 sow farms accounting for 220,000 sows.
 - The weekly report capturing the changes in incidence and prevalence of important pathogens has been shared to participants (n=33) and non-participants (n=185). Now we report on PRRS, PEDv, SVA and novel viruses associated with atypical central nervous system disease.
 - The weekly science page featured authors from 18 institutions who explained cutting edge research findings, recent publication summaries, and breakdowns of MSHMP data.

6 peer-reviewed publications were generated because of MSHMP and 3 more are in preparation.

1. Gustavo Silva et al. Monitoring breeding herd production data to detect PRRSV outbreaks. *Prev Vet Med.* 2017 Dec 1.
2. Moh Alkamis et al. Surveillance of Porcine Reproductive and Respiratory Syndrome virus in the United States using risk mapping and species distribution modeling. *Prev Vet Med.* 2017 Nov 16.
3. Daniel Linhares et al. Effect of immunologic solutions on sows and gilts on time to stability and production losses in breeding herds infected with 1-7-4 PRRSv. *Prev Vet Med.* 2017 Sep 1.
4. Carles Vilalta et al. A review of quantitative tools used to assess the epidemiology of Porcine Reproductive and Respiratory Syndrome in US swine farms using Dr. Morrison's Swine Health Monitoring Program data. *Front Vet Sci.* 2017 Jun 27.
5. Andreia Arruda et al. Estimation of time-dependent reproduction numbers for Porcine Reproductive and Respiratory Syndrome across different regions and production systems of the US. *Front Vet Sci.* 2017 Apr 5.
6. Andreia Arruda et al. Land altitude, slope and coverage as risk factors for Porcine Reproductive and Respiratory Syndrome (PRRS) outbreaks in the United States. *PLoS One.* 2017 Apr 17.

MSHMP is glad to have a diverse and proactive team comprised of faculty, post-docs and grad students from different institutions. We would like to acknowledge such a strong team.

Faculty

R. Morrison †
C. Corzo
A. Perez
M. Torremorell
M. Alkamis
K. VanderWaal
J. Alvarez
D. Linhares (ISU)
D. Holtkamp (ISU)
A. Arruda (OSU)
G. Machado (NCSU)

Students, Post-Docs, and Staff

Carles Vilalta
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A Record of MSHMP Science pages can be found at
<https://www.vetmed.umn.edu/centers-programs/swine-program/research-sdec/science-pages-swine-health-monitoring-project>