Industrialized systems of food animal production are a potential source of exposure to antibiotic-resistant *Staphylococcus aureus* that can be transmitted between animals and humans. Healthy individuals who have frequent contact with intensively-raised livestock, such as industrial hog operation workers, may be at an increased risk of exposure to zoonotic *S. aureus* and may serve as a bridging population for transmission to the community. In the United States, there is little information regarding persistence of exposure to *S. aureus* among this population, occupational activities that may be associated with exposure, health implications of exposure, or dissemination of these bacteria into the household environment via environmental or occupational pathways.

This dissertation sought to address these research gaps through the following three studies: a) a 14-day, repeated measures pilot study of *S. aureus* nasal carriage among industrial hog operation workers; b) a four month, repeated measures study of *S. aureus* nasal carriage among industrial hog operation workers and their household members; and c) a sampling study of workers’ household environments in a region with a high density of industrial livestock production. In the 14-day study, we observed persistent nasal carriage with zoonotic *S. aureus* among industrial hog operation workers, even during time away from work. In the four month study, we observed that infrequent face mask use was a predictor of workers’ nasal carriage with zoonotic *S. aureus*, presence of zoonotic *S. aureus* in workers’ noses was associated with reported symptoms of skin and soft tissue infection, and that zoonotic *S. aureus* may be transferring from workers to their household members. In the household environmental sampling study, we observed that increased environmental exposure to industrial hog operations was associated with a higher percentage of household surfaces contaminated with zoonotic *S. aureus*. Overall, this work demonstrates that antibiotic-resistant, zoonotic *S. aureus* is disseminating beyond those occupationally exposed to intensive food animal operations, and that nasal carriage of these bacteria may be associated with symptoms of skin and soft tissue infection. These findings should be used to inform national policies about food animal production practices such that worker and community health may be safeguarded.

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