

## PUBLIC HEALTHWORKER SAFETY

**Title:** Prevalence and characterization of Methicillin-resistant *Staphylococcus aureus* (MRSA) in pigs and farm workers on conventional and antibiotic-free swine farms in the USA. **NPB #: 08-178, 08-179, 08-180**

FINAL

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**Scientific Abstract:** Much uncertainty remains about the origin and public health implications of livestock-associated methicillin-resistant *Staphylococcus aureus* (LA-MRSA). This study aimed to investigate the occurrence and prevalence of MRSA in general and LA-MRSA in particular in pigs and farm workers in five states. We collected nasal swabs from pigs and farm workers at 45 swine herds (21 antibiotic-free herds; 24 conventional herds) in Illinois, Iowa, Minnesota, North Carolina and Ohio. MRSA was isolated from 50 of 1085 pigs (4.6%) and 31 of 148 (20.9%) of farm workers. MRSA-positive pigs and people were clustered in four conventional swine farms in Iowa and Illinois. Based on genotyping, spa type t034, a common livestock associated variant, was predominant among both human and swine isolates. These results confirm the presence of LA-MRSA in pigs and swine farm workers in the USA, but the prevalence found is relatively low compared with European studies.

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