Staphylococcus aureus (S. aureus) is a commensal bacterium in about one in three humans. Methicillin-resistant S. aureus (MRSA) can be carried by persons in contact with livestock animals, as these are a large reservoir of MRSA (livestock-associated MRSA: LA-MRSA).

The research described in this thesis aimed to gain more insight into the prevalence, determinants, spread, dynamics and public health threat of LA-MRSA carriage in persons in contact with pigs. Its main conclusions are:

- LA-MRSA has an extremely high prevalence in persons in contact with live pigs and their family members; it was found in up to 63% of pig farmers, 10% of household members, 15% of pig slaughterhouse personnel, and 46% of field workers. However, LA-MRSA has not yet spread from the farms into the community; only 0.2% of persons living in the most pig-dense municipalities in the Netherlands carried MRSA.

- Pig contact was the most important determinant for LA-MRSA carriage. Carriage of a methicillin-sensitive S. aureus (MSSA) and continuously wearing a mouth mask were associated with less LA-MRSA carriage.

The public health threat of LA-MRSA in the Netherlands at the moment appears to be low; the Dutch rate of MRSA bacteremia was lower than in other countries, and an association between LA-MRSA and infections or quality of life could not be proven.

Nevertheless, the fast genetic evolution of this specific strain can cause problems in the (near) future. Follow up of the initiated cohorts is useful to monitor changes and test interventions, in order to gain control of the situation.