

# CHARACTERIZATION OF COMMUNITY-ACQUIRED CC398 METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS CASES WITHOUT PIG CONTACT IN DENMARK, 2007-2014



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## BACKGROUND AND AIMS

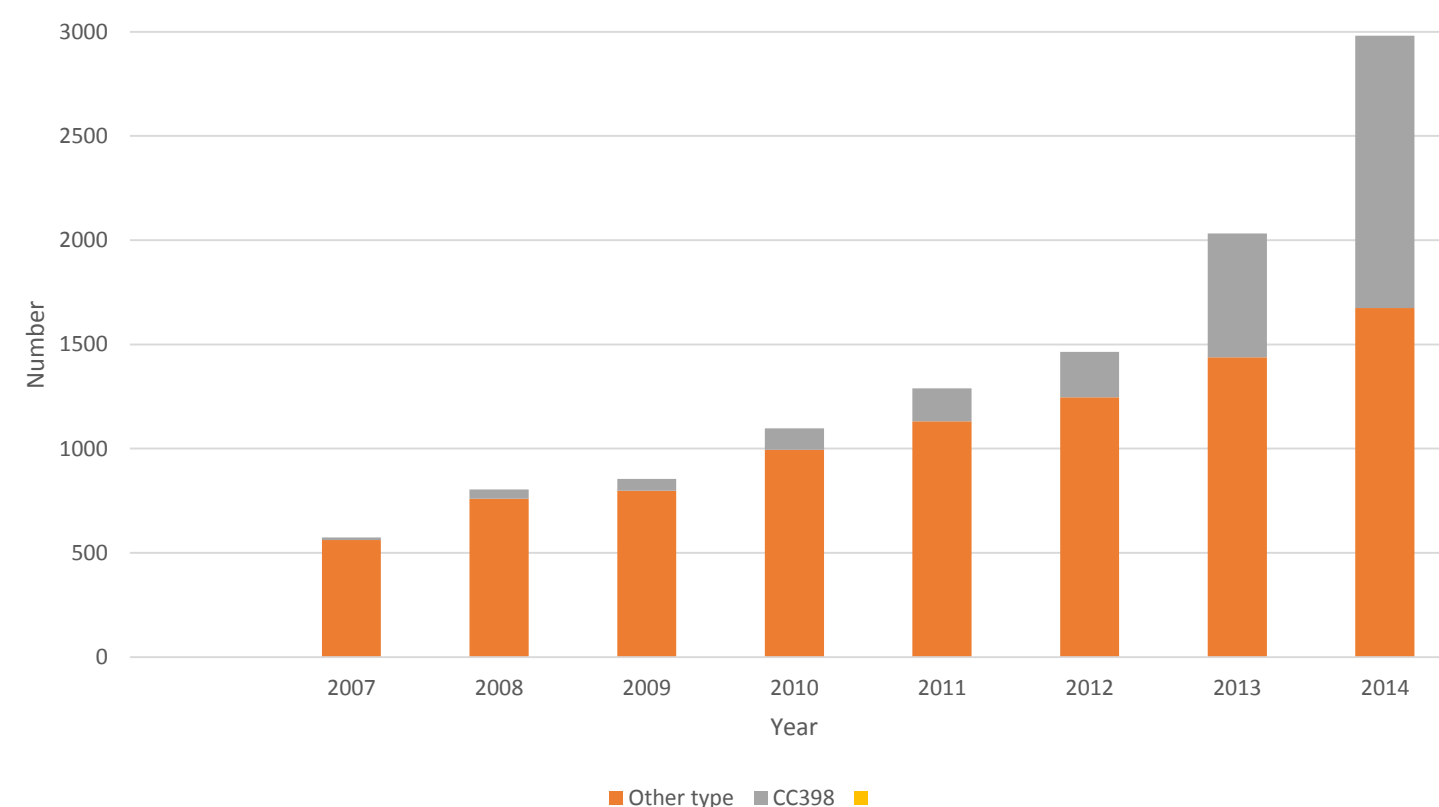
- ❖ Cases of **CC398 MRSA**, which normally is associated with pig contact, has increased in Denmark in recent years.
- ❖ In 2014, 43% of all new reported MRSA cases were typed as CC398 MRSA (clinical and non-clinical isolates).
- ❖ 9% of CC398 MRSA cases reported no contact with live pigs, indicating a spread into the community.
- ❖ We **AIM** to describe the epidemiology of community-acquired (CA) CC398 MRSA compared to livestock associated CC398 MRSA (LA-MRSA) and other non CC398 CA-MRSA cases.

## KEY MESSAGES

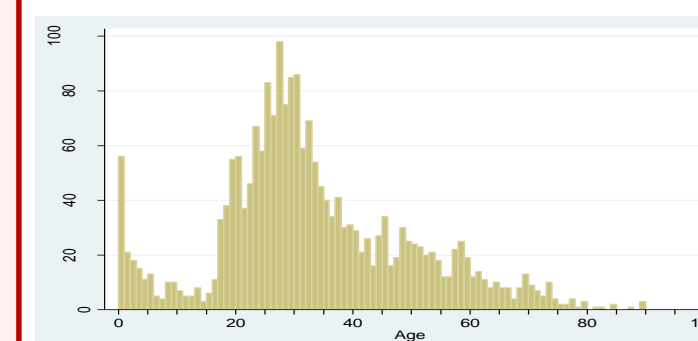
- ❖ **CC398 MRSA is increasing in Denmark**
- ❖ **Cases of CC398 CA-MRSA resemble that of non-CC398 CA-MRSA cases**
- ❖ **The resemblance is a reflection of the usual screening activity in the community.**

## RESULTS

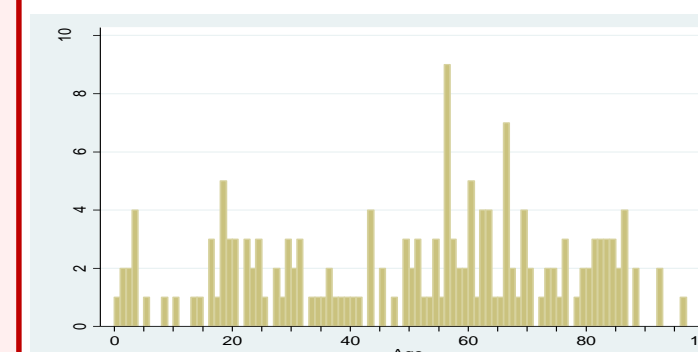
**FIGURE 1** MRSA CASES IN DENMARK, 2007-2014



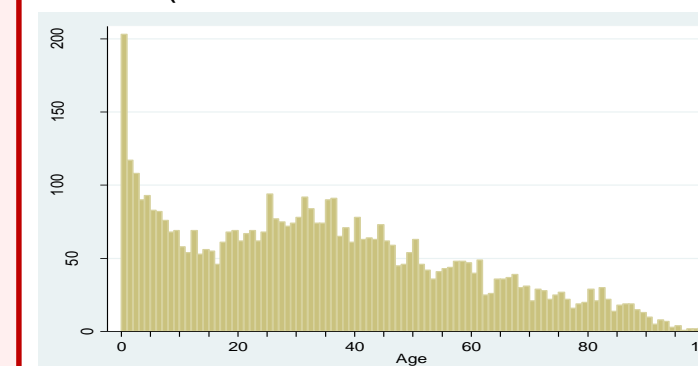
**FIGURE 2** Age-distribution of CC398 LA-MRSA, CC398 CA-MRSA and non-CC398 CA-MRSA 2007-2014



CC398 LA-MRSA cases 2007-2014 (N=2.089)

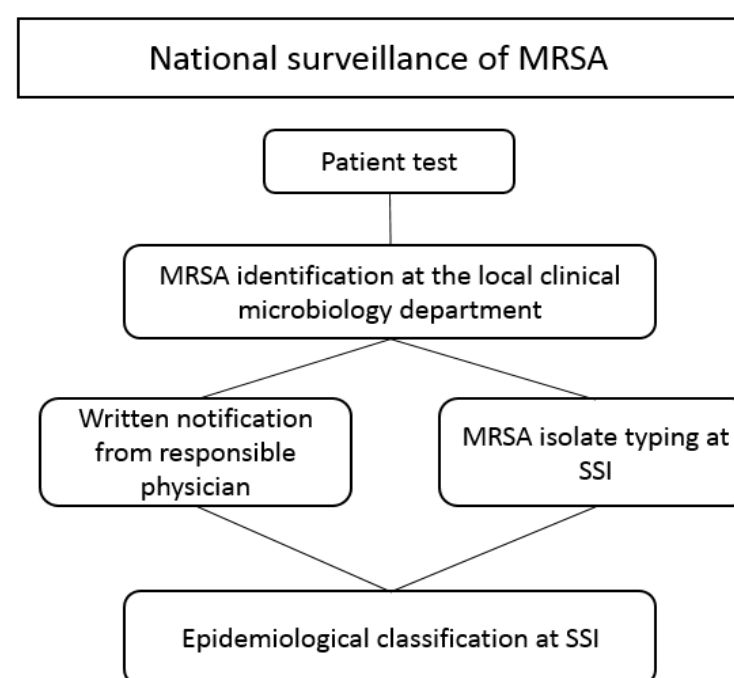


CC398 CA-MRSA cases 2007-2014 (N=165)



Non-CC398 CA-MRSA cases 2007-2014 (N=4979)

## METHODS



**Data source:**  
The National MRSA registry.

**Inclusion criterias:**  
- All MRSA notifications in the MRSA registry from 2007-2014.

**Exclusion criterias:**  
- Hospital aquired cases  
- Cases aquired abroad

**TABLE 1** CHARACTERISTICS OF MRSA CASES 2007-2014

	CC398 LA-MRSA (N=2.089)		CC398 CA-MRSA (N=165)		NON-CC398 CA-MRSA (N=4979)	
	Male	Female	Male	Female	Male	Female
Sex (%)	1.288 (62%)	801 (38%)	75 (45%)	90 (55%)	2.420 (49%)	2.559 (51%)
<b>Screening by indication</b>						
Clinical infection (%)	256 (20%)	139 (17%)	53 (71%)	63 (70%)	1.343 (55%)	1.255 (49%)
Asymptomatic (%)	833 (65%)	535 (67%)	9 (12%)	16 (18%)	788 (33%)	1.017 (40%)
Total (%)	1.089 (85%)	674 (84%)	62 (83%)	79 (88%)	2.131 (88%)	2.272 (89%)

## CONCLUSIONS

SSI = Statens Serum Institut  
CC398 = Clonal Complex  
398

- ❖ Cases of **CC398 CA-MRSA** with out pig contact, resemble that of non-CC398 CA-MRSA cases in terms of age and gender distribution and by indication for screening.
- ❖ The resemblance is a reflection of the usual screening activity in the community.
- ❖ There is a need to discover what risk factors for CC398 CA-MRSA that are present, to get a more detailed knowledge of how CC398 MRSA is spreading into the community.