

OLB13

2-hour Oral Session

Late breaker session: Refugee and migrant health

The impact of immigrants and importation on the increasing reporting rate of MRSA infections in Norway, 2006-2015

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Background: Recent studies have reported an increasing incidence of methicillin-resistant *Staphylococcus aureus* (MRSA) in Norway, but the proportion of MRSA among *S. aureus* isolates from blood cultures has remained less than one percent. Travels abroad and immigration from high prevalence countries might be important drivers of the current MRSA epidemiology in Norway.

Material/methods: We analysed monthly data on MRSA infections reported to the Norwegian Surveillance System for Communicable Disease (MSIS). A time series analysis was performed using quasi-Poisson regression to study the time trend of the reporting rate in Norway, stratified by ethnic background (Norwegian vs Immigrant), place of infection (domestic vs abroad) and age.

Results: A total of 5289 MRSA infections were notified in the time period 2006-2015. Of those, 2255 (42.6%) were acquired in Norway, 1370 (25.9%) abroad, while 1664 (31.5%) had missing information about place of infection. In the study period the mean level of the reporting rate increased by almost a factor of 3 with a monthly growth of 0.85% (95% CI 0.72 - 0.99 %), changing from 0.51 in January 2006 to 1.41 in December 2015. Analyses of the ethnic background showed that the monthly growth of the reporting rate among immigrants, 1.37% (95% CI 1.18 - 1.58%), was much steeper than that of cases with Norwegian background, 0.56% (95% CI 0.43 - 0.70%). Considering the place of infection, we found that the reporting rate for MRSA acquired abroad increased more steeply compared to MRSA acquired in Norway. Among the imported cases, a monthly increase of 0.77% (95% CI 0.62 - 0.93%) was estimated with a reporting rate level of 0.35 at the end of the period. Most of these infections were acquired in Asia (43.3%) and in Europe (24.9%). Furthermore, we estimated a significant increase of the reporting rate of 87% during the month of August. This increment in the summer period was characteristic in people younger than 40 years of age. For the infections acquired in Norway, the reporting rate increased each month by 0.37% (95% CI 0.24 – 0.50%) and the mean level at the end of the study period arrived at 0.47. The growth was found associated with people younger than 70 years of age; the highest reporting rate was observed in people older than 70, whilst their time trend remained stable within the study period.

Conclusions: The reporting rate of MRSA infections continues to increase in Norway. The increase is particularly evident among people with an immigrant background, infections acquired abroad and in young people, suggesting that tourism and immigration may be important drivers for the current rise in MRSA infections in Norway.

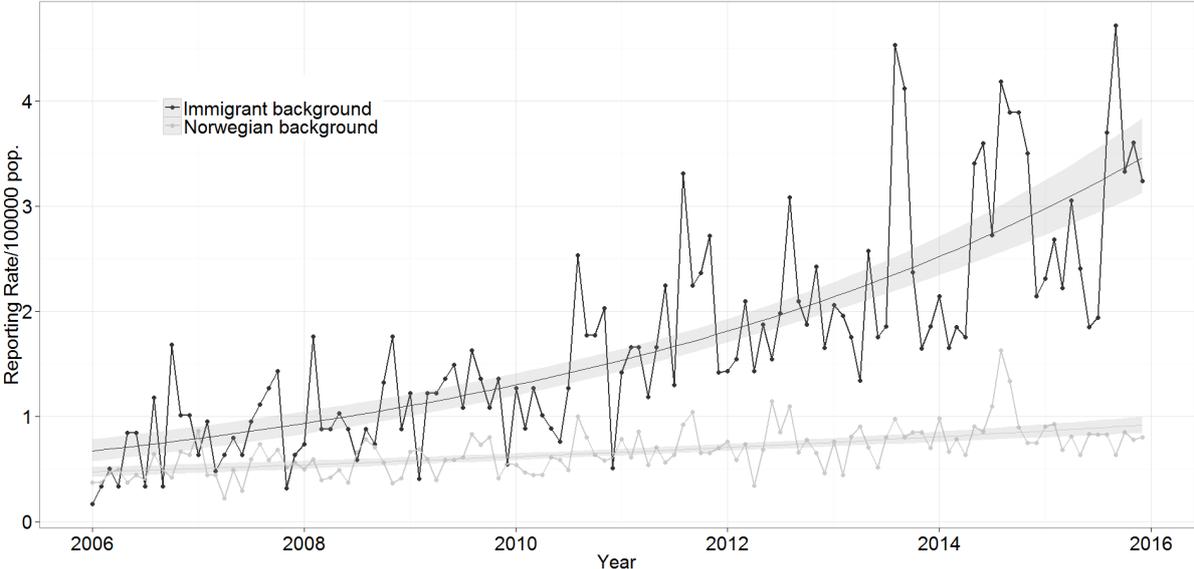


Figure: Monthly reporting rate per 100000 pop. of cases with an immigrant and a Norwegian background.