

No evidence of a higher burden of measles among migrant populations in the European Union and European Economic Area

*A new research article concludes that migrants in the European Union and European Economic Area (EU/EEA) do not have a higher burden of measles in comparison to the native European population, but vulnerable migrant groups may face barriers in accessing routine Measles, Mumps and Rubella (MMR) immunizations. The article therefore suggests that EU/EEA Member States strengthen monitoring of measles cases and MMR vaccination coverage in migrant populations. Two authors from the study, **Gemma A Williams** from LSE Health and **Teymur Noori** from the European Centre for Disease Prevention and Control (ECDC), discuss these findings.*

Measles is a highly contagious, life-threatening illness. Despite the existence of an inexpensive and efficacious vaccine, measles remains a leading cause of child mortality and severe disability in Sub-Saharan Africa, East Asia and the Western Pacific. In the EU/EEA, the burden of measles is currently low compared to these other regions due to the implementation of highly successful MMR immunization programmes; EU/EEA measles cases have significantly declined in the past twenty years from 304,184 cases in 1991 to 3,637 in 2014. However, despite this considerable decline, measles cases reported to ECDCs *The European Surveillance System* (TESSy) currently correspond to 7.1 cases per million population, above the WHO measles elimination criteria of one case per million population in a twelve month period. Although much success has been accomplished in attempting to eradicate measles, the current target of eliminating measles in the region by 2015 will now not be achieved.

Progress towards meeting the goal of measles elimination in the EU/EEA by 2015 is being obstructed as some children are either not immunized on time, or are never immunized. Sub-optimal coverage rates often occur in at-risk groups, such as Roma, Irish travellers orthodox religious communities and other people who do not believe in vaccination. This results in clusters of unvaccinated individuals that reduce overall population coverage below the 95% minimum needed for eradication and contributes to dissemination of the disease to other sections of the population. Migrants are a further group thought to be at increased risk of measles due to insufficient vaccination coverage; however, the extent to which this is the case is poorly understood due to a lack of data.

To address this evidence gap, the ECDC commissioned a team of experts from LSE Health, London School of Hygiene and Tropical Medicine, the University of Amsterdam and the University of Parma to produce a report providing a comprehensive overview of the burden of measles in migrant populations in the EU/EEA. Data for the report were collected through a comprehensive literature review, a country survey of EU/EEA member states and information provided by measles experts at an infectious disease workshop.

The report found that little information is available on the occurrence of measles in migrants in Europe. The literature review identified few studies that assessed measles among migrant populations, with literature instead focused on specific minorities at risk of measles such as Roma, Traveller, anthroposophic and ultra-orthodox Jewish communities. Furthermore, although national surveillance systems for measles are in place and regular reporting occurs, data is incomplete in relation to migrant health. Surveillance systems do not routinely record migrant-specific information, such as country of birth, and instead capture importation status of measles cases. Whether a disease is 'imported' does not indicate whether the person who has it is a migrant, only that they have been travelling in the days before disease onset.

Despite these limitations, several important findings emerged from this study in relation to measles in migrant populations. Data collected by the survey of member states showed that between 2007

to 2010, 13 countries collected information on the migrant status of measles cases; 142 of 1995 (7.12%) reported measles cases in these countries among migrants. In comparison, the total foreign-born population in these 13 countries in 2010 was 9.8%, indicating that migrants do not have a high burden of measles in comparison to the native population. Nonetheless, there was a wide variation between countries, with no cases reported in migrants in Slovenia, Malta, Hungary, Finland and Estonia, but 25.5% of cases reported in migrants in Greece and 75.9% of cases reported in migrants in Norway.

The literature review further concluded that some measles outbreaks in the EU/EEA were linked to sub-optimal vaccination coverage in migrant populations, with migrant children being less likely to be vaccinated than their native counterparts. Another area of concern emerging from the literature was limited access of undocumented migrants to health services and immunization programmes, which may increase vulnerability to measles outbreaks.

Evidence from our research does not support the view that migrants overall have a higher burden of measles, contrary to perceptions that are widespread in some quarters. Nonetheless, concerns over low MMR vaccination coverage in some at-risk migrant groups and varying patterns of measles in migrant populations in different countries make it essential that all countries undertake routine surveillance of migrant-specific variables for measles cases and MMR vaccination rates. These data will ensure that policy responses can be tailored to emerging developments in individual member states and can help inform the provision of preventive services that may need to reach out to vulnerable migrant populations currently facing barriers in accessing routine immunization services.

Further information

Williams GA, Bacci S, Shadwick R, Tillmann T, Rechel B, Noori T, Suk JE, Odone A, Ingleby JD, Mladovsky P, McKee M (2015) [Measles among migrants in the European Union and the European Economic Area](#), *Scandinavian Journal of Public Health*, Published online November 2015.

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