

Malaria in Eritrean migrants newly arrived in Europe, 2011 to 2016

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Global migration has resulted in a surge of asylum applications in Europe. In 2014, clusters of *Plasmodium vivax* cases were reported among newly arrived Eritreans. This study aimed to assess the malaria burden among Eritrean migrants in Europe in the years 2011 to 2016.

We reviewed annual European migration numbers and malaria surveillance data for the seven countries which received 44050 (94.3%) out of a total of 46730 Eritreans seeking asylum in Europe in 2014. Clinical data on malaria in Eritrean migrants was analyzed in Germany and Sweden.

The overall number of malaria cases, predominantly *P. vivax*, increased significantly in 2014 compared to previous years with the largest increases in Germany (44 *P. vivax* cases in 2013 versus 294 in 2014 ($p < 0.001$)) and Sweden (18 in 2013 versus 205 in 2014 ($p < 0.001$)). In Sweden, a high proportion of cases presented with severe disease. Overall malaria incidence in Eritreans increased from 1- 5 cases to maximum 25 per 1000, and up to 50 per 1000 in teenagers between 2011 and 2014. During 2016 the incidence decreased to levels similar to 2011-2013.

In conclusion, an exceptional increase of malaria cases occurred in Europe in 2014 and 2015 caused by rising numbers of Eritreans arriving in Europe and an increased incidence of *P. vivax* in this population. Our results demonstrate the potential for rapid changes in the patterns of imported malaria. An added burden from malaria in Eritreans stresses the need for improved awareness, surveillance efforts and timely health care in migrants.