

Appendix 2: Calculation of age-sex adjusted rates of acute gastroenteritis hospital episodes per 10,000 children < 5 years old by NUTS2

We used a direct standardization method which consists in applying the age-sex specific rates of each NUTS2 to the corresponding strata of a standard population. Here, we used the annual resident population of children under five years old in mainland Portugal (Instituto Nacional de Estatística, INE),²⁶ stratified by age and sex as the standard population. In other words, the age-sex standardized rates by NUTS2 correspond to the rates geographical units would have if they had the same age-sex distribution as the standard population.

For each year, we calculated the crude age-sex specific rate by NUTS2. Then, we multiplied these rates by the corresponding age-sex strata of the standard population to obtain the expected number of events (i.e., hospital episodes of rotavirus and AGE) for each population strata by NUTS2. Then, we calculated the age-sex adjusted rates by NUTS2 by dividing the total number of expected events by NUTS2 by the standard population, for a given year.