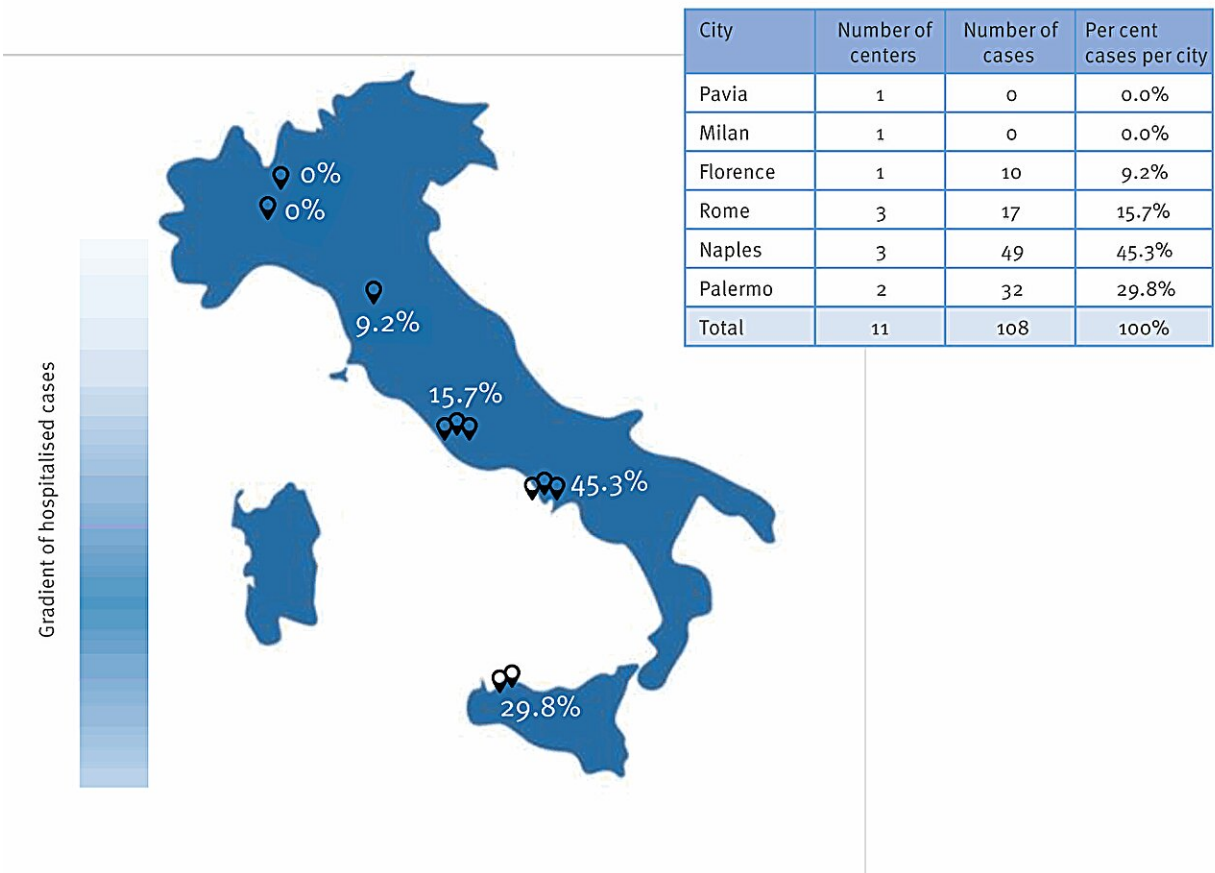


Pertussis outbreak in neonates and young infants across Italy: Implications for vaccination strategies

June 7 2024



Distribution of hospitalized pertussis cases aged 0–24 months at 11 participating centers, Italy, 1 January–10 May 2024 (n = 108). The shading of the left bar indicates an increasing gradient of hospitalized cases from the north to the south of Italy. Credit: *Eurosurveillance* (2024). DOI: 10.2807/1560-7917.ES.2024.29.23.2400301

Data for this analysis was collected through an EU-funded National Recovery and Resilience Plan (NRRP) project. Clinicians from seven Italian reference centers, along with four additional pediatric and neonatal wards across Italy, provided information on pertussis cases, including vaccination status, treatment, and outcomes.

The research is [published](#) in the journal *Eurosurveillance*.

Key findings highlighted that the majority of the affected were unvaccinated, with most cases occurring in the southern cities of Naples and Palermo. Among the 75 hospitalized children, 68.5% were under four months old, and 11.1% required [intensive care](#). The [outbreak](#) led to a stark increase in hospitalizations compared to previous years, with an 800% rise within the first 4 months of 2024 compared to 2022 and 2023.

A detailed analysis from centers in Naples, Rome, and Palermo indicated that 47 of the cases had viral coinfections, which often exacerbated the disease severity. The study also revealed critical gaps in maternal vaccination, with only 3 of 53 of mothers vaccinated during pregnancy and only 10 of 48 informed about the option.

The ongoing outbreak underscores the critical need for [public health interventions](#) such as maternal immunization and early vaccination of infants. The findings indicate that prenatal vaccination could significantly mitigate disease severity and reduce hospitalization duration.

The resurgence of pertussis in Italy aligns with similar trends observed in Europe after the COVID-19 pandemic, during which COVID-19-related disruptions to regular vaccination schedules and public health measures

may have compromised population immunity.

Authors propose several strategies to effectively counteract the resurgence of pertussis. These include implementing maternal vaccination during pregnancy, vaccinating infants as early as possible, providing antibiotic post-exposure prophylaxis (PEP) for contacts and starting vaccination campaigns targeting people who have missed booster doses.

Additionally, active screening for individuals with respiratory symptoms should be promoted, thus minimizing exposure and containing the spread of the infection. The high number of hospitalized infants and reported mortality underscore the urgent need to address this public health concern.

More information: Marco Poeta et al, Pertussis outbreak in neonates and young infants across Italy, January to May 2024: implications for vaccination strategies, *Eurosurveillance* (2024). [DOI: 10.2807/1560-7917.ES.2024.29.23.2400301](https://doi.org/10.2807/1560-7917.ES.2024.29.23.2400301)

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