

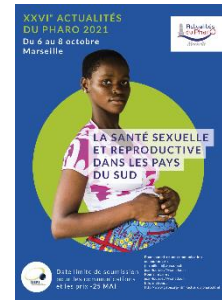
Actualités du Pharo 2021 – Session 6

Diphtheria: a disease still rife in Mayotte in 2021

Keywords: diphtheria, Mayotte, epidemiology, re-emergence risk

Marion SUBIROS

marion.subiros@santepubliquefrance.fr



Thanks to very high vaccination coverage (CV), diphtheria due to *C. diphtheriae* has disappeared in metropolitan France. Almost all the cases reported over the last 20 years throughout the country are imported from countries where epidemics are rife. For the past ten years, half of the reported cases of *C. diphtheriae* diphtheria have been located in Mayotte.

Epidemiological surveillance of diphtheria in Mayotte is based on the system for monitoring notifiable diseases. Reports are made by the island's clinicians and biologists, and the cases reported are those due to strains carrying the tox gene. Investigations are systematically carried out around each confirmed case in order to detect the origin of the contamination, to identify all contacts and to implement management measures (verification of vaccination status, prophylactic treatments). The local context makes it difficult to follow up patients, who are often lost to follow-up. Since 2012, in line with the regular identification of cases in the territory, the Mayotte Hospital laboratory has had a procedure for rapid diagnosis of *C. diphtheriae* carriage and identification of the tox gene.

Usually, 0 to 2 cases due to isolates carrying the tox gene (tox+) are reported each year in Mayotte. Between 2012 and 2019, the majority of the 16 confirmed cases in Mayotte were cases of cutaneous diphtheria, half of which were imported from the Comoros.

The situation has changed during 2019 with six cases of diphtheria reported, including five cutaneous forms. These were four children (6 months to 4 years) and a 40-year-old woman. One of the cases was imported from Anjouan (Comoros). Investigations could only be carried out on three cases, each time revealing about ten contacts and uncertain vaccination status. Also, a case of ENT diphtheria was reported in a teacher who had never been vaccinated. For this case, 175 contacts were identified. The survey showed insufficient CV in the contact population, especially among the case's colleagues.

The data for the year 2020 continued to show a worrying situation. Four cases of tox+ cutaneous diphtheria were diagnosed in 3 adults aged 45, 58 and 63 years whose vaccination status was unknown and in an 11 year old child who was presumably up-to-date with his vaccinations.

Finally, during the first half of 2021, two new cases were reported: a case of cutaneous diphtheria tox+ in a 7 year old child, a priori up to date with his vaccinations and a case of ENT diphtheria tox+, which occurred in April 2021 in a 4 month old child, who had not received any infant vaccine. The child died of toxin shock.

In Mayotte, the CV data are old (InVS 2010). In 2021, the results of the CV survey conducted in the general population in 2019 will be available. In the meantime, a few targeted studies on specific populations (children under 6 years old, health professionals) have revealed CV levels that are largely insufficient to ensure a protective collective immunity in the population. This situation exposes the territory to the appearance of new cases of diphtheria as well as other vaccine-preventable diseases such as whooping cough or measles. This risk

is all the more worrying as the countries in Mayotte's trade zone show a significant incidence of these potentially fatal diseases.

These data confirm the place of vaccination at the heart of public health issues in Mayotte in 2021. Interventions designed to raise the CV of the Mayotte population must be strengthened, with particular attention paid to vulnerable populations and/or those who are far from seeking care.