Chinese Notifiable Infectious Diseases Surveillance Project

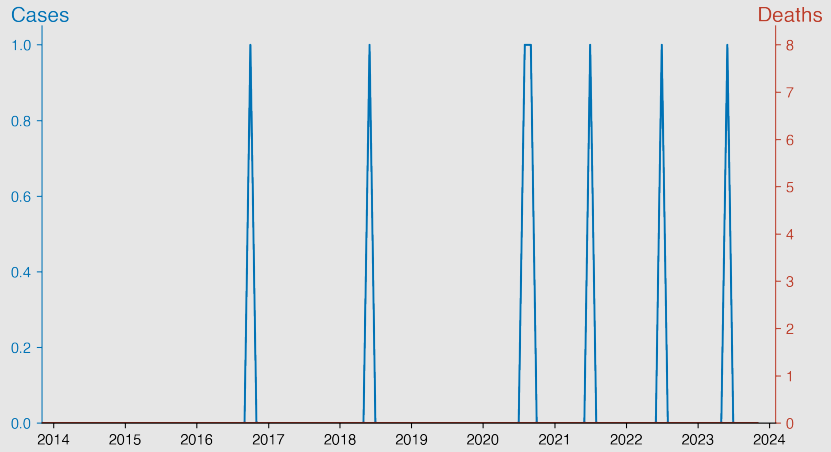
Diphtheria

November 2023

Introduction

Diphtheria is a serious, contagious bacterial infection caused by Corynebacterium diphtheriae. It primarily affects the mucous membranes of the throat and nose, potentially leading to difficulty breathing, heart failure, paralysis, and even death if untreated. It spreads through person-to-person contact or through contact with items touched by an infected person. Despite being largely preventable through vaccines, Diphtheria remains a concern in areas with low immunization or high poverty rates. Early treatment with diphtheria antitoxin and antibiotics is paramount to prevent any serious complications.

Temporal Trend



Highlights

- Diphtheria maintains a very low incidence in mainland China, with only sporadic cases observed (7 isolated cases) from January 2010 to November 2023.
- An unexplained data point shows 8 deaths in November 2010 without corresponding cases, hinting at reporting inaccuracies or late diagnoses.
- Since then, no further deaths have been reported, indicating effective treatment and management strategies for the disease.
- The consistent minimal case numbers highlight the success of China's vaccination policies and diphtheria containment efforts.

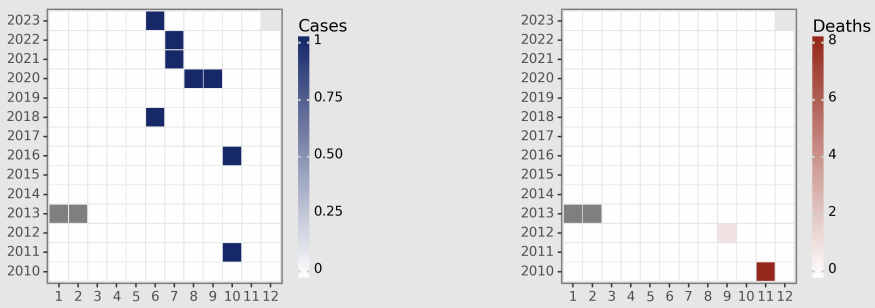
Cases Analysis

From 2010 to 2023, diphtheria cases in Chinese mainland were minimal, with a total of six cases reported across the entire timeline. No cases were recorded for vast stretches of time, reflecting either effective vaccination programs, underreporting, or both. A single case was observed sporadically in 2011, 2016, 2018, 2020, 2021, 2022, and June 2023, indicating sporadic occurrences that did not lead to larger outbreaks. This suggests successful containment and prevention strategies, considering China's large population and high potential for infectious disease spread.

Deaths Analysis

Despite the low case count, there were nine reported deaths, which indicates a high case fatality rate for the actual cases that occurred. All deaths occurred in November 2010, with one additional death in September 2012. The absence of cases corresponding to these deaths might suggest misclassification or reporting errors. Alternatively, these could have been due to complications of previously unreported cases or reflect a reporting lag. The mortality data suggests the need for a thorough review of both the reporting system and clinical management of diphtheria in the Chinese mainland.

Distribution



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