Chinese Notifiable Infectious Diseases Surveillance Report

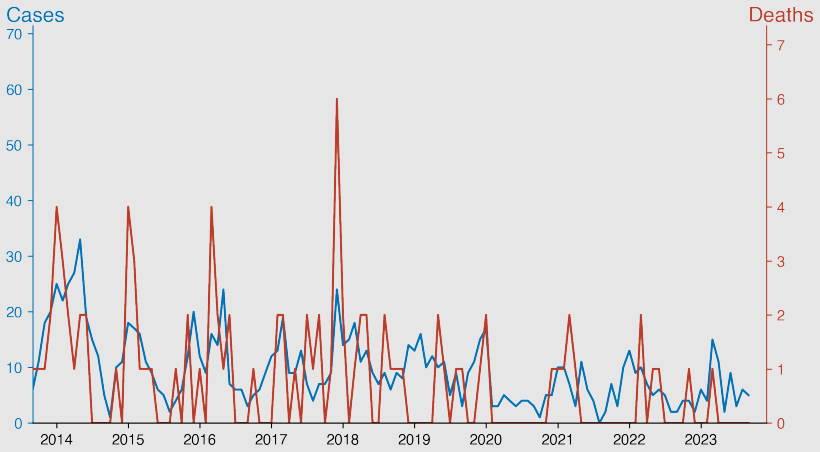
Meningococcal meningitis

September 2023

Introduction

Meningococcal meningitis is a bacterial form of meningitis, a serious infection of the thin lining that surrounds the brain and spinal cord. It is caused by Neisseria meningitidis, which can also lead to a life-threatening bloodstream infection called meningococcemia. The disease can progress rapidly, often presenting with fever, headache, stiff neck, and altered consciousness. Vaccines are available to prevent certain types of meningococcal disease, which is spread through respiratory and throat secretions. Early antibiotic treatment is crucial, as the infection can become fatal or cause severe disabilities within hours of onset.

Temporal Trend



Highlights

Over 13 years, there's a clear downward trend in Meningococcal meningitis cases in mainland China, from a peak of 68 cases in March 2010 to a low of 2-5 cases in 2023.
- The case fatality rate has generally been low, with single-digit death numbers even when case numbers were high. Deaths in 2023 stand at zero.
- There appears to be a cyclic pattern, with case numbers usually peaking during late winter and early spring months.
- There's a substantial reduction of Meningococcal meningitis cases from 2020, potentially due to improved prevention measures or underreporting during the COVID-19 pandemic.

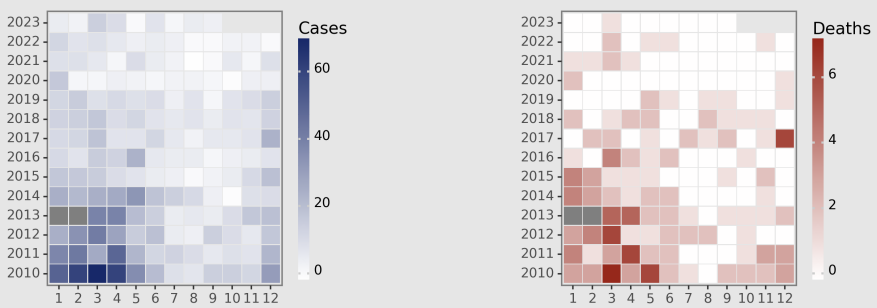
Cases Analysis

The data shows a general downward trend in reported cases of Meningococcal meningitis in mainland China from 2010 to 2023. Peaks are seen around the early months of each year, particularly January, February, and March before they start to decrease. It could be associated with climatic suitability for disease spread. Interestingly, a sharp decrease in cases is noticeable from 2020. This could potentially be attributed to enhanced public health measures following the start of the Covid-19 pandemic.

Deaths Analysis

Similarly, the number of deaths also show a decline over the same period. In the initial years, there seem to be some correlation between the number of cases and deaths, i.e., peak in cases also seeing a slightly increased number of deaths but from 2017 onwards, the parallelism weakens remarkably. The deaths in the period from 2020 onward are significantly reduced, suggesting improved clinical management or earlier detection, aside from the aforementioned public health measures.

Distribution



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