Chinese Notifiable Infectious Diseases Surveillance Report

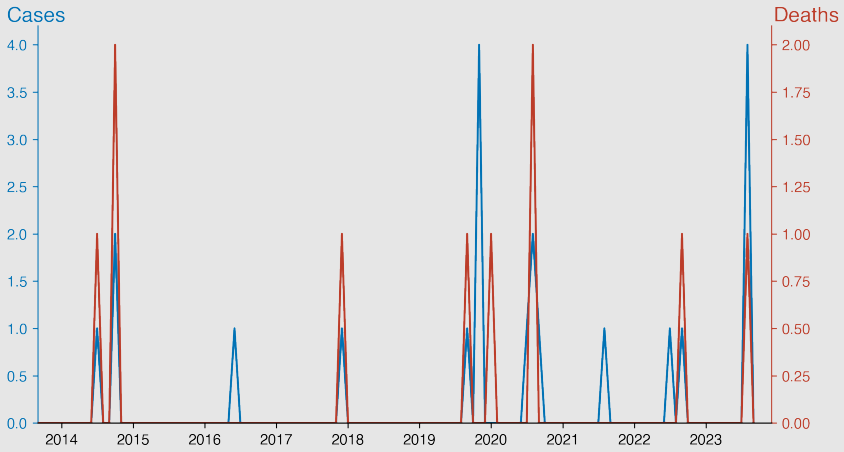
Plague

September 2023

Introduction

Plague is an infectious disease caused by the bacterium Yersinia pestis, mainly found in rodents and their fleas. The disease can manifest in three forms: bubonic, septicemic, and pneumonic. Bubonic plague is the most common, characterized by swollen lymph nodes, while septicemic plague affects the bloodstream, and pneumonic plague the lungs. Transmission occurs through flea bites, direct contact with infected tissues, or inhalation of respiratory droplets. Historically, plague caused widespread pandemics, including the Black Death in the 14th century. Today, it is treatable with antibiotics but can still cause fatalities without prompt treatment.

Temporal Trend



Highlights

Plague in mainland China has a generally low prevalence, with a few sporadic occurrences reported annually.
- Notably, the data reveals an increase in plague activity during the autumn period (September - October), with 2019 observing the highest number of cases in November.
- The mortality rate of the reported cases fluctuates but generally appears to be high, suggesting potentially late detection or aggressive forms of the pathogen.
- As of September 2023, the situation is currently stable with no new cases reported; however, the substantial increase in the previous month (August) warrants enhanced surveillance.

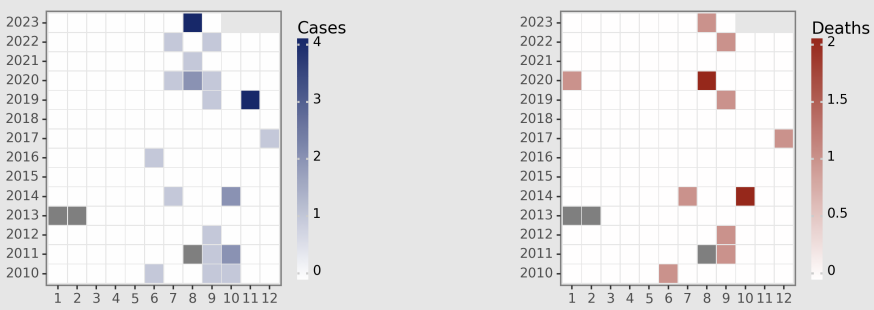
Cases Analysis

The data indicates that plague cases in mainland China are exceedingly infrequent. Instances of reported cases seem to occur sporadically, with the average number of cases per month barely exceeding 0 for the majority of the reported period. A more substantial situational change occurs in 2019 with 5 cases being registered in 2 months, and in 2023 with 4 cases in August. As no regular pattern in plague cases emerges, these instances may reflect isolated occurrences rather than widespread epidemics.

Deaths Analysis

A similar pattern can be observed in the number of reported deaths resulting from the plague. The death rate seems to correlate with the number of reported cases, indicating an almost 1:1 ratio. However, some instances (e.g. August 2020, August 2023) show less deaths than reported cases, suggesting some level of effective treatment or misdiagnosis occurring. The data shows no significant increase or decrease in deaths over time, aligning with the sporadic occurrence pattern rather than a consistent trend.

Distribution



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