Chinese Notifiable Infectious Diseases Surveillance Report

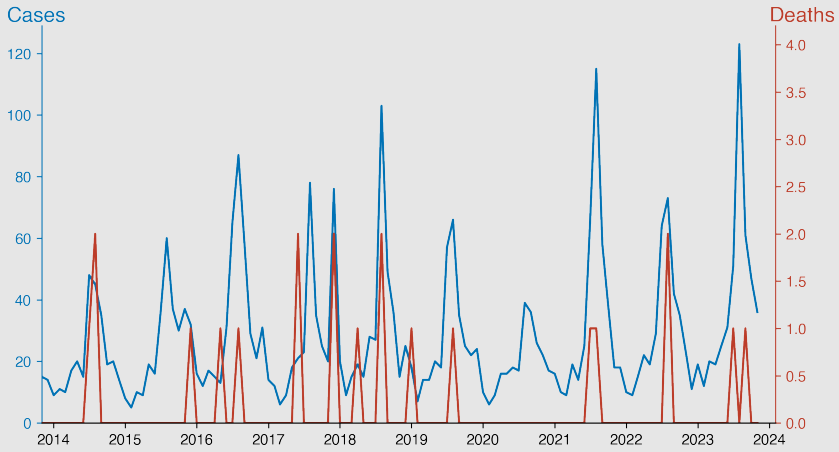
Anthrax

November 2023

Introduction

Anthrax is a serious, potentially lethal disease caused by the bacterium Bacillus anthracis. It primarily affects livestock and wildlife, but can also infect humans, typically through occupational exposure. Anthrax spores are resilient and can survive in harsh conditions for a long time. The disease can present in three forms in humans - cutaneous (skin), inhalation, and gastrointestinal - depending upon the route of infection. Vaccines are available but are usually reserved for people at high risk. Treatment involves antibiotics, and early intervention significantly improves outcomes.

Temporal Trend



Highlights

- Seasonal trends in Anthrax cases are evident, with case numbers peaking annually during summer months (July and August), suggesting a possible link to climatic conditions or agricultural practices during this period.
- Despite fluctuations, there has been a noticeable increase in cases over time, with August 2023 recording the highest number of cases (123) since the data tracking began in 2010 January.
- The overall fatality rate remains low, with occasional spikes in death counts (e.g., August 2022 with 2 deaths), indicating that while infection rates may be rising, the disease is being managed with respect to mortality.
- The most recent data indicates that while there has been a substantial number of cases in November 2023 (36 cases), no deaths were reported, suggesting ongoing efforts in disease surveillance and management are

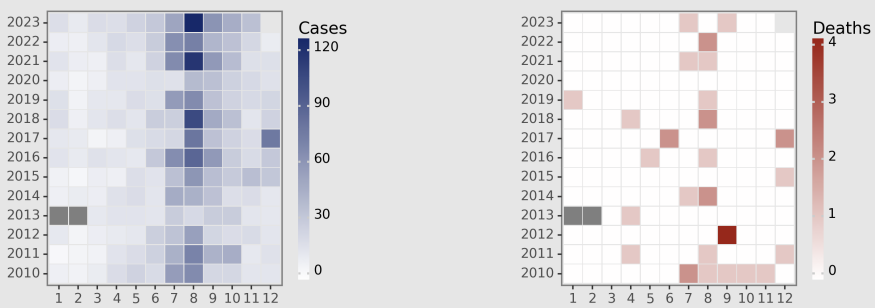
Cases Analysis

Looking at the data for Anthrax from 2010 to 2023 in Chinese mainland, there is a distinct seasonal pattern, with cases rising sharply in July and August, which are the peak months. This could be attributed to the increased interaction between humans and animals or animal products due to agricultural practices. The highest number of cases was reported in August 2023 (123 cases), indicating either a worsening of the situation, better reporting mechanisms, or an outbreak. Meanwhile, the winter months usually have the lowest case count, which supports the role of seasonal factors in transmission dynamics.

Deaths Analysis

The fatality data for Anthrax during the same period shows sporadic deaths, with the highest occurring in September 2012 (4 deaths), followed by a few other spikes (2 deaths) in July 2010, August 2014, December 2017, and August 2022. The mortality rate does not seem to follow a clear seasonal trend and is relatively low compared to the number of cases, suggesting that the case fatality ratio is low or that effective treatment options are available and accessible to prevent deaths once the infection has been identified.

Distribution



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