

Chinese Notifiable Infectious Diseases Surveillance Report

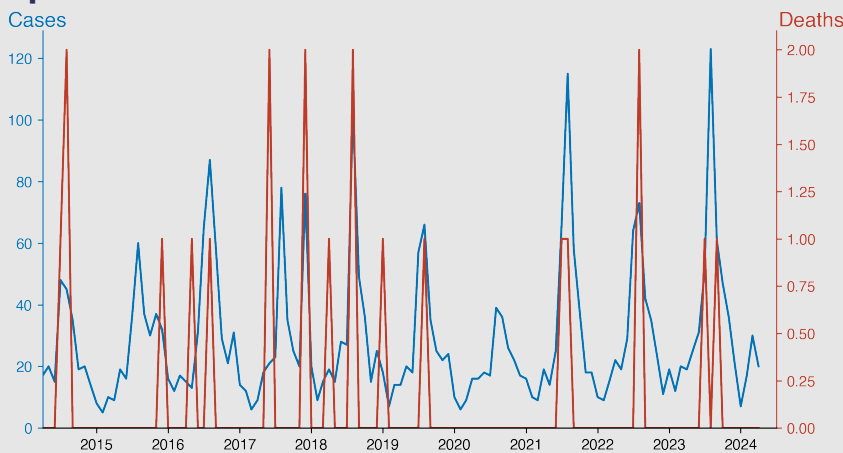
Anthrax

April 2024

Introduction

Anthrax is a severe and potentially fatal disease caused by *Bacillus anthracis*, a spore-forming bacterium. It primarily affects livestock and wild game, but humans can get infected through exposure to infected animals or their products. Anthrax comes in three forms: cutaneous (skin), inhalation (lungs), and gastrointestinal (digestive system). Cutaneous is the most common and least deadly, whereas inhalation anthrax is the most lethal. Anthrax is not contagious but it is a potential biological weapon due to the longevity and survivability of its spores.

Temporal Trend



Highlights

- A clear seasonal trend exists, with Anthrax case peaks in China's warm months (June to September).
- Case numbers fluctuate; an increase is seen in August, peaking at 123 in August 2023.
- Deaths are low suggesting a low case-fatality rate, with sporadic fatalities like the two in August 2022.
- As of April 2024, the situation is stable with 20 cases, no deaths, but previous trends suggest a possible summer increase.

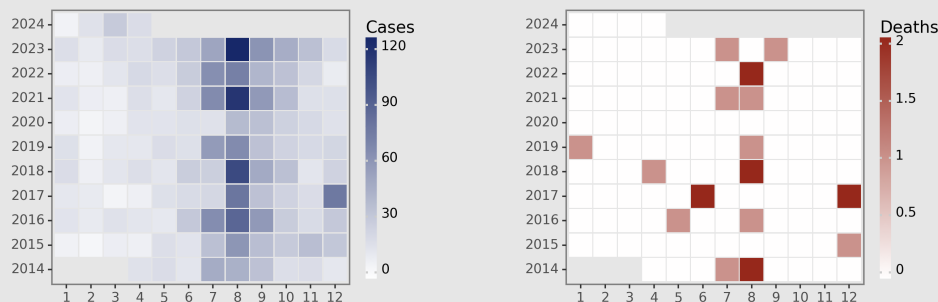
Cases Analysis

Over a ten-year period (2014-2024), Anthrax cases in mainland China exhibit seasonality, peaking in warmer seasons (July-August) and exhibiting declines in colder months (December-January). Comparatively, the number of anthrax cases have seen an upward trend, with the total number of cases in the peak period more than doubling from 48 in July 2014 to 123 in August 2023. The increasing number of cases might suggest a rising incidence of Anthrax, possibly due to factors such as changes in livestock management practices, increased spore survival in environmental reservoirs, or enhanced monitoring and detection efforts.

Deaths Analysis

The data on Anthrax-related deaths in the Chinese mainland presents an infrequent occurrence. Most months reported zero deaths, despite the varying number of cases. The highest number of deaths occurred sporadically with a maximum of two in a month (August 2014, August 2016, June 2017, December 2017, August 2018, August 2021, August 2022, and September 2023). Surprisingly, these deaths are not necessarily concurrent with the highest case numbers, suggesting successful intervention measures or varying pathogen virulence. The trends point to a relatively low case fatality rate for Anthrax during this period.

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