

Chinese Notifiable Infectious Diseases Surveillance Report

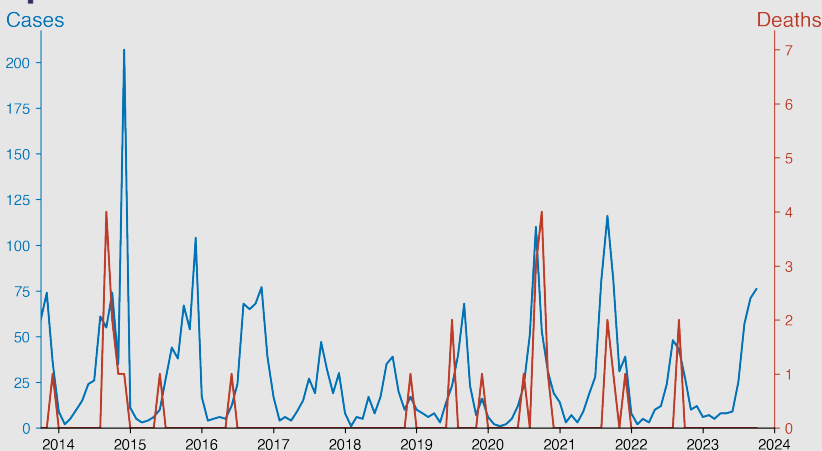
Leptospirosis

October 2023

Introduction

Leptospirosis is a bacterial disease that affects humans and animals. It is caused by the bacteria of the genus *Leptospira*. Infection typically occurs through exposure to water contaminated with the urine of infected animals or through direct contact with their tissues or bodily fluids. The bacteria can penetrate the body through cuts in the skin or mucous membranes. Symptoms range from mild flu-like manifestations to severe illness with organ failure. Without proper treatment, leptospirosis can lead to kidney damage, meningitis, liver failure, respiratory distress, and even death. Vaccines are available for at-risk animals but not for humans.

Temporal Trend



Highlights

Seasonal pattern identified, with peak incidence occurring between July and October, consistent with the rainy season conducive to the spread of *Leptospira* in water and soil.

- A steady decline in both cases and deaths is observed over the 13-year period, indicating effective public health interventions and possibly improved diagnostics, treatment, and prevention measures.
- Sporadic fluctuations in case numbers possibly reflect localized outbreaks, underscoring the need for targeted surveillance and ongoing risk management in endemic areas.
- The most recent data from October 2023 shows a continuation of the endemic presence of leptospirosis, with 76 cases and no deaths reported, which suggests that fatality rates are being controlled.

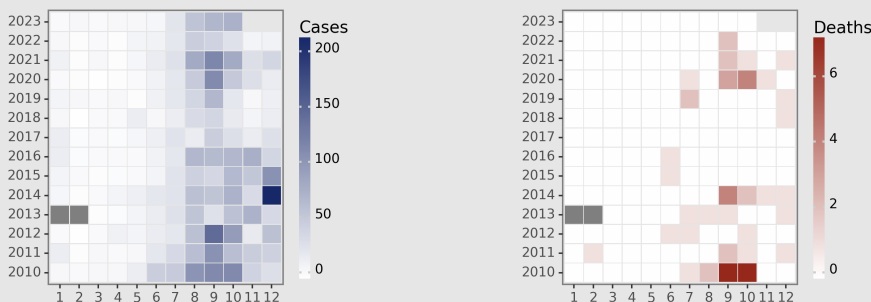
Cases Analysis

Leptospirosis incidence in mainland China exhibits a clear seasonal pattern, with case numbers incrementing during the warmer months, from May to October, indicating a potential link with seasonal activities and environmental factors that favor bacterial transmission. Over the years, a noticeable peak often occurs between August and October. However, annual variations are apparent, with some years like 2012 and 2013 showing particularly high numbers. Notably, cases remain low during the winter months, underscoring the influence of climate on disease spread.

Deaths Analysis

Fatalities resulting from Leptospirosis in China are sporadic and low in number. The data reveals months with heightened case counts not necessarily correlating with increased deaths, suggesting effective clinical interventions or variable pathogenicity. The mortality rate is not constant, with years like 2010 seeing higher death peaks in September and October. Despite fluctuations, there appears to be no significant upward trend in deaths, indicating a possibly stable case fatality rate throughout the observed period.

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