# Chinese Notifiable Infectious Diseases Surveillance Report October 2023

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# Chinese Notifiable Infectious Diseases Surveillance Report

## IMPORTANT

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# Chinese Notifiable Infectious Diseases Surveillance Report
## October 2023

| Disease | Cases | | | Deaths | | |
|---|---|---|---|---|---|---|
| | Reported | MoM* | YoY** | Reported | MoM* | YoY** |
| Plague | 0 | 0 (/) | 0.0 (/) | 0 | 0 (/) | 0.0 (/) |
| Cholera | 2 | -7 (-77.78%) | -1.0 (-33.33%) | 0 | 0 (/) | 0.0 (/) |
| SARS-CoV | 0 | 0 (/) | 0.0 (/) | 0 | 0 (/) | 0.0 (/) |
| Acquired immune deficiency syndrome | 5,210 | 89 (1.74%) | 1,245.0 (31.40%) | 1,866 | 173 (10.22%) | 317.0 (20.46%) |
| Hepatitis | 152,695 | 4,937 (3.34%) | 43,675.0 (40.06%) | 257 | 80 (45.20%) | 186.0 (261.97%) |
| Hepatitis A | 986 | -52 (-5.01%) | 234.0 (31.12%) | 0 | 0 (/) | 0.0 (/) |
| Hepatitis B | 129,041 | 5,546 (4.49%) | 39,026.0 (43.35%) | 32 | 12 (60.00%) | -1.0 (-3.03%) |
| Hepatitis C | 19,466 | -556 (-2.78%) | 3,446.0 (21.51%) | 224 | 67 (42.68%) | 188.0 (522.22%) |
| Hepatitis D | 15 | 0 (0.00%) | 5.0 (50.00%) | 0 | 0 (/) | 0.0 (/) |
| Hepatitis E | 2,543 | -7 (-0.27%) | 860.0 (51.10%) | 1 | 1 (/) | -1.0 (-50.00%) |
| Other hepatitis | 644 | 6 (0.94%) | 104.0 (19.26%) | 0 | 0 (/) | 0.0 (/) |
| Poliomyelitis | 0 | 0 (/) | 0.0 (/) | 0 | 0 (/) | 0.0 (/) |
| Human infection with H5N1 virus | 0 | 0 (/) | 0.0 (/) | 0 | 0 (/) | 0.0 (/) |
| Measles | 88 | 10 (12.82%) | -23.0 (-20.72%) | 0 | 0 (/) | 0.0 (/) |
| Epidemic hemorrhagic fever | 439 | 241 (121.72%) | 39.0 (9.75%) | 3 | 2 (200.00%) | 1.0 (50.00%) |
| Rabies | 13 | 5 (62.50%) | 1.0 (8.33%) | 12 | 5 (71.43%) | 6.0 (100.00%) |
| Japanese encephalitis | 32 | -30 (-48.39%) | 5.0 (18.52%) | 2 | 1 (100.00%) | 2.0 (/) |
| Dengue | 5,388 | -1,106 (-17.03%) | 5,062.0 (1552.76%) | 0 | -1 (-100.00%) | 0.0 (/) |
| Anthrax | 47 | -14 (-22.95%) | 12.0 (34.29%) | 0 | -1 (-100.00%) | 0.0 (/) |
| Dysentery | 3,067 | -591 (-16.16%) | 508.0 (19.85%) | 0 | 0 (/) | 0.0 (/) |
| Tuberculosis | 59,239 | -2,620 (-4.24%) | 8,114.0 (15.87%) | 354 | 30 (9.26%) | 50.0 (16.45%) |
| Typhoid fever and paratyphoid fever | 480 | -116 (-19.46%) | -14.0 (-2.83%) | 1 | 1 (/) | 0.0 (0.00%) |
| Meningococcal meningitis | 5 | 0 (0.00%) | 1.0 (25.00%) | 0 | 0 (/) | 0.0 (/) |
| Pertussis | 4,430 | -87 (-1.93%) | 1,836.0 (70.78%) | 0 | 0 (/) | 0.0 (/) |
| Diphtheria | 0 | 0 (/) | 0.0 (/) | 0 | 0 (/) | 0.0 (/) |
| Neonatal tetanus | 2 | 1 (100.00%) | 1.0 (100.00%) | 0 | 0 (/) | 0.0 (/) |
| Scarlet fever | 2,533 | 987 (63.84%) | 1,150.0 (83.15%) | 0 | 0 (/) | 0.0 (/) |
| Brucellosis | 4,477 | -1,510 (-25.22%) | 1,942.0 (76.61%) | 0 | -2 (-100.00%) | 0.0 (/) |
| Gonorrhea | 10,328 | 181 (1.78%) | 2,369.0 (29.77%) | 0 | 0 (/) | -1.0 (-100.00%) |
| Syphilis | 56,981 | 1,214 (2.18%) | 17,927.0 (45.90%) | 3 | -2 (-40.00%) | 1.0 (50.00%) |
| Leptospirosis | 76 | 5 (7.04%) | 48.0 (171.43%) | 0 | 0 (/) | 0.0 (/) |
| Schistosomiasis | 2 | -1 (-33.33%) | -9.0 (-81.82%) | 0 | 0 (/) | 0.0 (/) |
| Malaria | 193 | 0 (0.00%) | 101.0 (109.78%) | 1 | 0 (0.00%) | 1.0 (/) |
| Human infection with H7N9 virus | 0 | 0 (/) | 0.0 (/) | 0 | 0 (/) | 0.0 (/) |
| Monkey pox | 127 | 47 (58.75%) | / (/) | 0 | 0 (/) | / (/) |
| Influenza | 340,969 | 172,006 (101.80%) | 271,897.0 (393.64%) | 1 | 1 (/) | 0.0 (0.00%) |
| Mumps | 8,287 | -2,580 (-23.74%) | -1,250.0 (-13.11%) | 0 | 0 (/) | 0.0 (/) |
| Rubella | 110 | 38 (52.78%) | -8.0 (-6.78%) | 0 | 0 (/) | 0.0 (/) |
| Acute hemorrhagic conjunctivitis | 23,111 | -102,153 (-81.55%) | 21,102.0 (1050.37%) | 0 | 0 (/) | 0.0 (/) |
| Leprosy | 24 | 1 (4.35%) | 11.0 (84.62%) | 0 | 0 (/) | 0.0 (/) |
| Typhus | 215 | -12 (-5.29%) | 97.0 (82.20%) | 0 | 0 (/) | 0.0 (/) |
| Kala azar | 19 | -7 (-26.92%) | 3.0 (18.75%) | 1 | 1 (/) | 1.0 (/) |
| Echinococcosis | 311 | -56 (-15.26%) | 196.0 (170.43%) | 0 | 0 (/) | 0.0 (/) |
| Filariasis | 0 | 0 (/) | 0.0 (/) | 0 | 0 (/) | 0.0 (/) |
| Infectious diarrhea | 90,744 | -11,815 (-11.52%) | 29,001.0 (46.97%) | 0 | 0 (/) | 0.0 (/) |
| Hand foot and mouth disease | 165,527 | -1,453 (-0.87%) | 118,132.0 (249.25%) | 0 | 0 (/) | 0.0 (/) |
| Total | 935,171 | 55,604 (6.32%) | 513,943.0 (122.01%) | 2,501 | 288 (13.01%) | 564.0 (29.12%) |

*MoM: Month on Month change, **YoY: Year on Year change.

Epidemiological Report on Diseases in Mainland China
October 2023
Overview:
The month of October 2023 in mainland China saw a varied landscape of disease prevalence and impact. Cases of hand, foot, and mouth disease (HFMD) were notably high, with reported infections reaching up to 199,938 in a week but resulting in minimal fatalities (3 deaths over the entire month). Infectious diseases such as tuberculosis and hepatitis (all types combined) also presented significant case numbers, with tuberculosis cases exceeding 83,000 with over 200 deaths and hepatitis cases totaling over 120,000 with nearly 50 deaths in a single week. Other conditions such as syphilis and gonorrhea displayed significant prevalence, albeit with no reported fatalities. Infectious diarrhea and the flu showed high incidences but low fatalities. More serious in terms of mortality, epidemic hemorrhagic fever resulted in 33 deaths in one particular week, notwithstanding lower overall reported case numbers. This suggests a high case-fatality rate for this condition in the observed period.
In terms of deaths, diseases including rabies, Japanese encephalitis, and hepatitis B were amongst the leading causes of mortality due to infectious diseases. Hepatitis B alone was responsible for 40 deaths in a single week, underscoring its high impact on public health. Tuberculosis also represented a significant public health challenge with over 200 deaths reported in a week, indicating ongoing transmission and impact despite global control efforts. It's important to note that several diseases, such as scarlet fever, measles, and mumps, although widespread, had zero reported deaths during the month, showcasing the effectiveness of medical interventions or potentially lower pathogenicity in the context of mainland China.
Concerns:
High incidence diseases, such as HFMD, infectious diarrhea, and the flu, typically observed in the Chinese population, have remained prevalent throughout October 2023 without excessive mortality, indicating effective management practices in place for these endemic conditions. Conversely, diseases with lower incidence but higher mortality, such as epidemic hemorrhagic fever and hepatitis B, are of particular concern due to their significant case-fatality rates, warranting ongoing surveillance and targeted public health measures.
In terms of public concern, the persistence of tuberculosis as a widely prevalent disease with considerable mortality indicates a need for sustained public health focus and resource allocation. Additionally, the presence of diseases such as brucellosis and leptospirosis, with their potential to cause outbreaks and higher mortalities in specific populations or regions, has remained a persistent concern, reflecting the complex epidemiological environment in mainland China.
Limitations:
One of the primary limitations in the data is the potential underreporting or misreporting of both cases and deaths, which can be influenced by varying levels of healthcare access, reporting practices, or diagnostic capabilities across regions. It is necessary to interpret the data with caution, considering the potential disparities in surveillance sensitivity and specificity. Similarly, attributing deaths to specific diseases can be challenging due to comorbid conditions and insufficient diagnostic facilities, particularly in rural areas. This limitation can lead to misclassification of cause-specific mortality and morbidity, therefore impacting the reliability of the data presented.
Lastly, seasonal variations can impact the reported cases and diseases such as the flu have known seasonality effects that might contribute to higher case numbers during certain months. This seasonality, combined with complex interactions between diseases, weather patterns, and environmental factors, can affect disease transmission dynamics, challenging the accuracy and representation of the presented data.
Recommendations:
Considering the prevalence and impact of the diseases reported during October 2023 in mainland China, it is crucial to continue prioritizing vaccination programs, specifically for diseases such as influenza, measles, and rubella, which demonstrate high incidence but low mortality due to effective vaccine coverage. Public health messaging should emphasize the importance of vaccinations to prevent these diseases.
Efforts should also focus on strengthening surveillance systems to detect and respond to diseases with high mortalities, such as tuberculosis and hepatitis B. This includes expanding access to diagnostic services, facilitating prompt and appropriate treatment, and implementing targeted interventions to curb transmission in high-risk populations. Awareness programs aimed at populations at risk of zoonotic diseases, such as brucellosis and leptospirosis, should be ongoing to reduce exposure.
Finally, given the limitations in the data, continued investment in healthcare infrastructure is recommended to enhance disease reporting and diagnostic capabilities. Emphasis on data quality and the establishment of robust surveillance can further refine disease control strategies effectively addressing both endemic and emerging health threats in mainland China.

Notation from Data Source:
*

# News information since October 2023 in Chinese Mainland

Summary:
Since October 2023, mainland China has faced a surge in respiratory illnesses, predominantly among children in the northern provinces. The WHO has actively engaged with Chinese officials to monitor the situation. The healthcare system in some regions, including Beijing and Liaoning, has been under stress due to the influx of patients with respiratory symptoms. By November 2023, the cause of this uptick in cases had not been conclusively identified, but it is believed to be associated with seasonal patterns and the recent relaxation of COVID-19 preventative measures.

Outbreaks of Known Diseases:
The respiratory illness surge is linked to several familiar pathogens. The escalation of mycoplasma pneumoniae cases began in May 2023, worsening by August, and then turning into a severe outbreak by October. Alongside mycoplasma pneumoniae, influenza, respiratory syncytial virus (RSV), and SARS-CoV-2 have contributed to the growing number of respiratory infections. The National Health Commission of China provided these updates in November 2023, suggesting a connection to the earlier loosening of COVID-19 controls.

Emergence of Novel Pathogens:
There have been no reports of new or unidentified pathogens that could be responsible for the recent rise in respiratory illnesses in China. The WHO, along with Chinese health authorities, assert that the observed infections are due to well-known pathogens. The investigation has noted an uncommonly high severity of mycoplasma pneumoniae infections, particularly in children, but there has been no detection of novel infectious agents associated with this outbreak.

# News information since October 2023 around world

Summary:
There have been several prominent infectious disease events globally since October 2023. Notable incidents include routine surveillance of diseases such as Marburg virus disease (MVD), avian influenza A(H7N9) and A(H5N1) viruses, Middle East respiratory syndrome (MERS-CoV), Mpox (Clade I), Nipah virus, and the ongoing assessment of COVID-19 cases. Additionally, a spike in respiratory illnesses among children was noted in Northern China.
Outbreaks of Known Diseases:
- For Marburg virus disease (MVD), there were no new cases reported as of October 2023.
- Human infections by avian influenza A(H5N1) were previously reported in Cambodia, but no new cases have occurred in the recent time frame.
- Middle East respiratory syndrome (MERS-CoV) has not shown new incidences as well.
- There were confirmed cases and fatalities due to Mpox (Clade I) in Cameroon and the Republic of the Congo.
- No new outbreaks of the Nipah virus have been reported.
- The spread of COVID-19 has been on a decline, with lower cases and deaths leading up to October 22, 2023.
Emergence of Novel Pathogens:
The increase in respiratory illnesses observed among children in Northern China has been linked to known pathogens such as influenza, Mycoplasma pneumoniae, respiratory syncytial virus (RSV), and SARS-CoV-2. This surge is attributed to the easing of COVID-19 restrictions and the onset of the winter season. No new or unusual pathogens have been detected in relation to these cases.
Health organizations and governments continue to monitor and respond to these infectious disease threats, emphasizing control measures for known diseases and vigilance for new pathogenic threats.

# Chinese Notifiable Infectious Diseases Surveillance Report

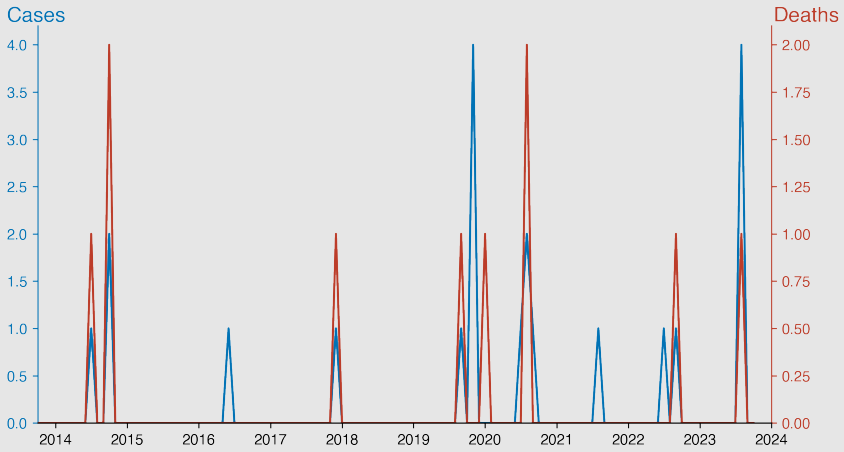
## Plague

October 2023

## Introduction

Plague is an infectious disease caused by the bacterium Yersinia pestis, typically found in small mammals and their fleas. It can manifest in three different forms: bubonic, septicemic, and pneumonic. The bubonic form is most common, characterized by swollen lymph nodes or "buboes." Transmission occurs through flea bites or direct contact with contaminated fluids or tissues and, for pneumonic plague, through inhalation of infected droplets. Historically, plague has caused widespread pandemics, including the Black Death in the 14th century. It is treatable with antibiotics if diagnosed early.

## Temporal Trend




## Highlights

Sporadic cases of plague have occurred in China with 15 reported incidents from 2010-2023, suggesting low endemicity but persistence of risk.
- Mortality was recorded in 9 out of 15 occurrences, indicating a high case-fatality rate when infections do happen.
- Notable spikes in cases and deaths were seen in November 2019 and August 2020, emphasizing periodic surges in transmission or reporting.
- The most recent surge in August 2023, with 4 cases and 1 death, signals the need for continued surveillance and prompt public health response.

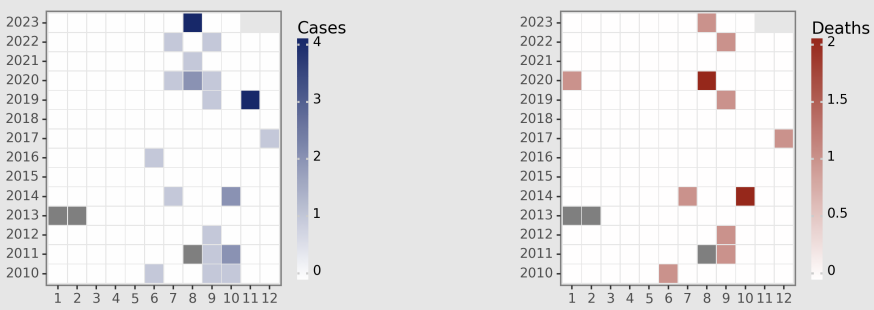
## Cases Analysis

Plague cases in mainland China from 2010 to 2023 demonstrate sporadic occurrences with a total of 21 reported cases over this 13-year span. Notably, cases occurred singularly in various months across the years, without clear seasonality or a sustained outbreak pattern. 2019 and 2020 showed relative peaks with four and three cases, respectively. The temporal distribution indicates random, isolated cases without an indication of a progressive endemic or epidemic trend within these years.

## Deaths Analysis

Mortality data reveals a total of 10 deaths from 2010 to 2023, signifying a high case-fatality ratio, common for plague without prompt treatment. Deaths occurred in the same month as cases about 50% of the time, suggesting rapid disease progression or coinciding discovery and reporting of cases already at a terminal stage. Limited data provided does not establish a trend of increasing lethality or frequency of lethal cases over time, which may reflect constant mortality risks or effective responses in isolated cases.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

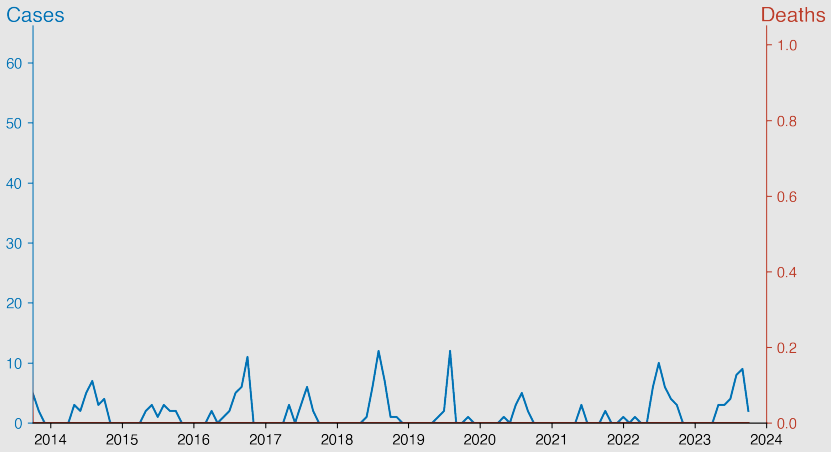
## Cholera

October 2023

## Introduction

Cholera is an acute diarrheal illness caused by the bacterium Vibrio cholerae. It primarily spreads through the ingestion of contaminated food or water. Symptoms include severe watery diarrhea, which can lead to dehydration and electrolyte imbalances. Without prompt treatment, these symptoms can be life-threatening due to rapid fluid loss. Infection is most common in places with inadequate water treatment, poor sanitation, and hygiene practices. Preventative measures include improved sanitation, safe drinking water, and vaccines. Treatment consists of rehydration, using oral rehydration salts or intravenous fluids, and antibiotics in severe cases.

## Temporal Trend




## Highlights

Seasonal pattern observed with case spikes typically occurring from July to September, coinciding with the warm and rainy season conducive to cholera transmission.
- A notable steady presence of cases each year with no significant uptrend or downtrend over the period analyzed, reflecting an endemic situation.
- Zero fatality rates in most months suggest either a low virulence strain of Vibrio cholerae, effective treatment modalities, or underreporting of cholera-attributable deaths.
- As of October 2023, the situation remains stable with a low number of cholera cases (2) and no deaths, indicating ongoing control measures may be effective.

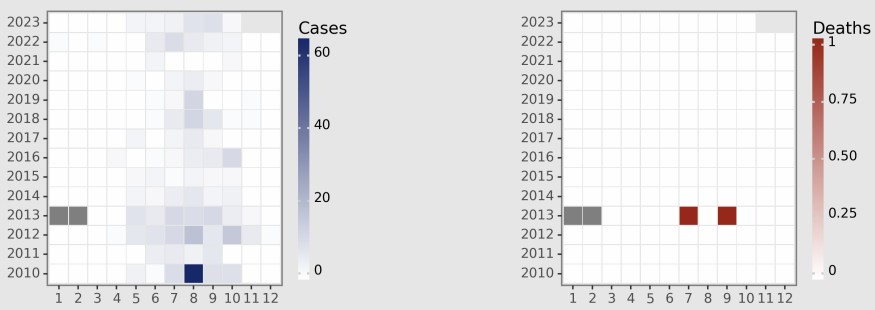
## Cases Analysis

Cholera case distribution in mainland China from 2010 to 2023 indicates sporadic activity, with the absence of cases for extended periods and spikes often occurring in the summer months. The year 2010 was marked by a notable increase in August (63 cases), while other years generally observed far fewer cases. July and August seem to be high-risk months, aligning with factors favorable for Vibrio cholerae. Despite fluctuations, there is no discernible escalating trend in cholera cases over the observed years, and instances remain relatively low.

## Deaths Analysis

Death data signify an extremely low fatality rate for cholera in mainland China from 2010 to 2023. Only 2 deaths were recorded, both in 2013, amidst a relatively low count of cases. This could illustrate the effectiveness of China's health system in cholera management and treatment responsiveness. The infrequency of deaths associated with cholera cases over the years supports the success of public health measures, including water sanitation, healthcare access, and possibly cholera vaccination efforts among at-risk populations.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

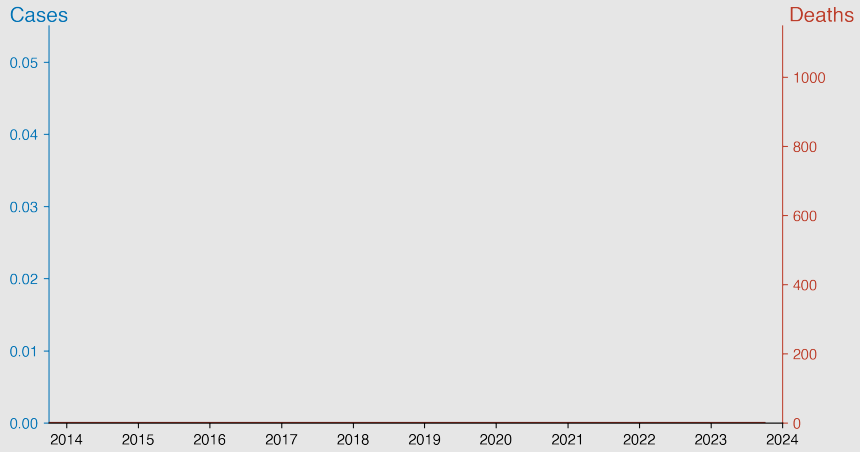
## SARS-CoV

October 2023

## Introduction

Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) is a zoonotic virus belonging to the family Coronaviridae. It was identified in 2003 as the cause of an outbreak of severe respiratory illness that emerged in China in 2002. SARS-CoV is characterized by fever, cough, and often progresses to pneumonia. Human-to-human transmission occurs mainly through respiratory droplets. The global outbreak was contained by 2004, with over 8,000 cases and nearly 800 deaths reported. The experience with SARS-CoV informed responses to later emerging coronaviruses such as MERS-CoV and SARS-CoV-2.

## Temporal Trend




## Highlights

No cases of SARS-CoV reported in mainland China since the available data begins in January 2010 through October 2023.
- A singular reporting anomaly appears in May 2012 with a recorded 1,093 deaths yet no associated cases, likely indicating a data entry error or an unrelated event not pertinent to SARS-CoV incidence.
- Continued zero-case trend suggests either the effective containment and elimination of SARS-CoV or a lack of reporting, which could be due to various factors including successful public health interventions.
- Overall, the SARS-CoV situation appears non-endemic or not present in mainland China within the provided data timeframe, based on the absence of reported cases or deaths.

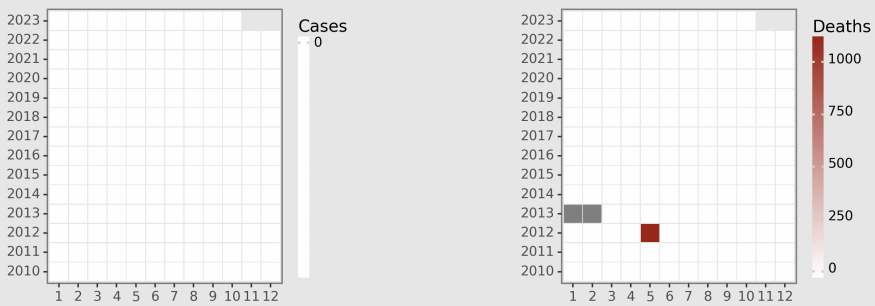
## Cases Analysis

The provided dataset shows no reported cases of SARS-CoV in Mainland China from January 2010 to October 2023. This prolonged absence of cases suggests successful control and containment measures following the SARS outbreak that occurred in 2003. The data reflects the effectiveness of the public health interventions and surveillance systems put in place to prevent re-emergence. Continued vigilance is essential, considering the potential for zoonotic transmission and the global mobility that could facilitate the spread of similar viruses.

## Deaths Analysis

In the reported data, there is an anomaly in May 2012, recording 1093 deaths without corresponding cases, which is likely a data error. All other months from January 2010 to October 2023 report zero deaths, indicating effective containment after the 2003 epidemic. The absence of mortality data congruent with case data suggests accurate recording and successful SARS eradication in the region with no secondary outbreaks, aligning with global SARS-CoV epidemiology post-2004. This underscores the importance of stringent public health policies to contain deadly pathogens.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

## Acquired immune deficiency syndrome

October 2023

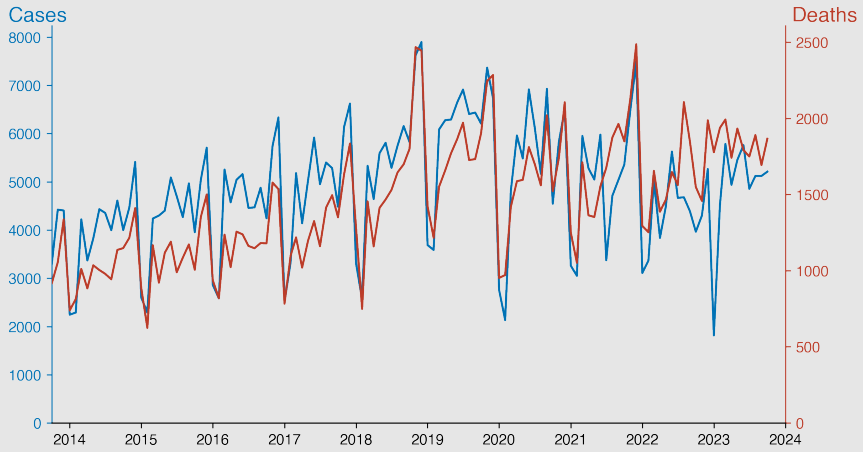
## Introduction

Acquired Immune Deficiency Syndrome (AIDS) is a chronic, potentially life-threatening condition caused by the Human Immunodeficiency Virus (HIV). By damaging the immune system, HIV interferes with the body's ability to fight off infectious diseases and cancer. AIDS is the most advanced stage of HIV infection. The virus can be transmitted through blood, semen, vaginal and rectal fluids, and breast milk. There are effective treatments that can significantly slow the disease's progress, improve quality of life, and reduce the risk of transmission to others. Without treatment, those with AIDS typically survive about three years.

## Highlights

A gradual increase in reported AIDS cases and deaths from 2010 to 2023, indicating a growing epidemic in mainland China.
- Particularly high peaks in cases and deaths are observed towards the end of each year, which could suggest seasonality or reporting practices.
- The data for January 2013 and February 2013 are missing, which may impact the accuracy of trend analysis for that period.
- The cases in October 2023 are elevated (5210 cases), with a substantial number of deaths (1866), reflecting a continued need for enhanced public health interventions.

## Temporal Trend



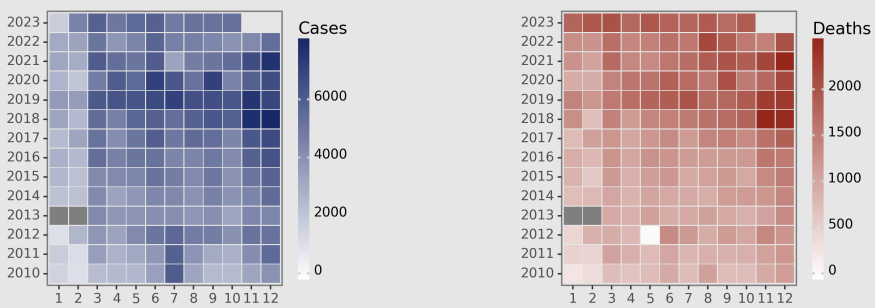

## Cases Analysis

From 2010 to 2023, Mainland China experienced fluctuations in monthly AIDS cases. Initial increases peaked in December 2010 (3,980), then showed variable patterns with subsequent highs in December of 2017 (6,622) and December 2018 (7,897). A notable decline occurred in March 2013, with missing data, then cases surged, reaching the preeminent peak in December 2021 (7,490). Cases diminished notably in January 2023 (1,815) then rose again in subsequent months, indicating a potential resurgence or reporting anomalies.

## Deaths Analysis

Deaths from AIDS followed an upward trend from 301 in January 2010 to a staggering 2,484 in December 2019, reflecting increased mortality despite improved treatments globally. A substantial decrease is observed in 2020, potentially due to reporting changes or healthcare interventions. However, deaths rose again, hitting the highest number in December 2021 (2,486). Interestingly, January 2023 showed a disproportionate increase in deaths (1,777) compared to cases, which could suggest reporting delays, changes in death attribution, or data quality issues. Subsequent months show continued high death rates, necessitating further investigation into potential causes and public health responses.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

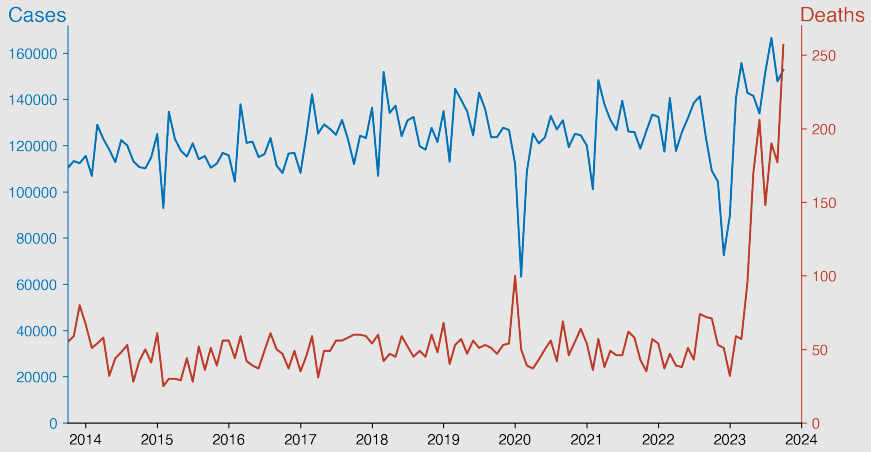
## Hepatitis

October 2023

## Introduction

Hepatitis is an inflammation of the liver, commonly caused by a viral infection, but there are other possible causes such as toxic substances and autoimmune diseases. The five main strains of hepatitis viruses are types A, B, C, D, and E. These types vary in prevalence, mode of transmission, geographic distribution, and health impacts. Symptoms may include jaundice, fatigue, and abdominal pain. Some hepatitis infections resolve spontaneously, while others can lead to chronic disease, cirrhosis, or liver cancer. Prevention and treatment depend on the type of hepatitis and may involve vaccines, antiviral drugs, or other strategies.

## Temporal Trend




## Highlights

Steady increase in Hepatitis cases observed since the beginning of 2023, indicating a significant rising trend that warrants further investigation and public health response.

- Notably high mortality rates recorded in October 2023 (257 deaths), suggesting either an enhanced virulence of the pathogen or possibly an outbreak of a more lethal strain or subtype.
- The Hepatitis death count has escalated sharply in recent months (since May 2023), marking a departure from relatively stable mortality seen in previous years, highlighting the need for urgent epidemiological studies.
- The sharp rise in cases and deaths, specifically from May to October 2023, demands immediate strengthening of surveillance, vaccination campaigns, and healthcare interventions targeting Hepatitis in mainland China.

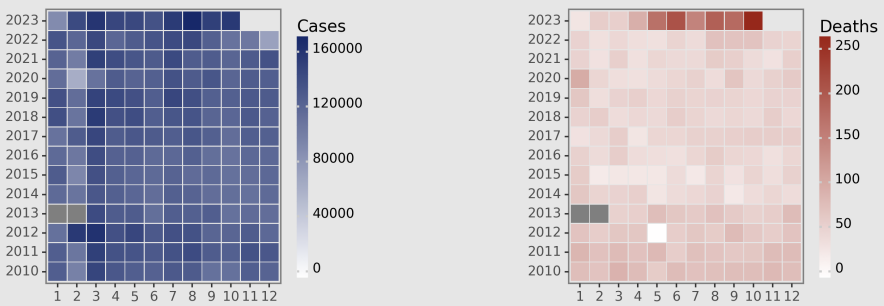
## Cases Analysis

From January 2010 to October 2023, reported cases of hepatitis in mainland China have exhibited fluctuations without a clear increasing or decreasing trend. Monthly cases initially ranged between 92,978 and 157,711, with occasional peaks suggesting potential outbreaks or enhanced detection efforts. A notable decrease occurred in December 2022, with 72,630 cases—the lowest in the observed period. However, cases surged in the final year, reaching a high of 166,606 in August 2023. This recent increase might indicate a significant outbreak or changes in surveillance/reporting.

## Deaths Analysis

The hepatitis-associated deaths fluctuated modestly from 2010 to early 2023, typically ranging from 25 to 100 monthly deaths. However, a stark escalation in fatalities was observed, starting in May 2023, with deaths rising sharply to a peak of 257 in October 2023. This increase in mortality rate could point to the emergence of a more virulent hepatitis strain, a larger outbreak overwhelming healthcare resources, reduced access to medical care, or potential co-infections exacerbating disease severity. Further investigation is warranted to understand and combat this trend.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

## Hepatitis A

October 2023

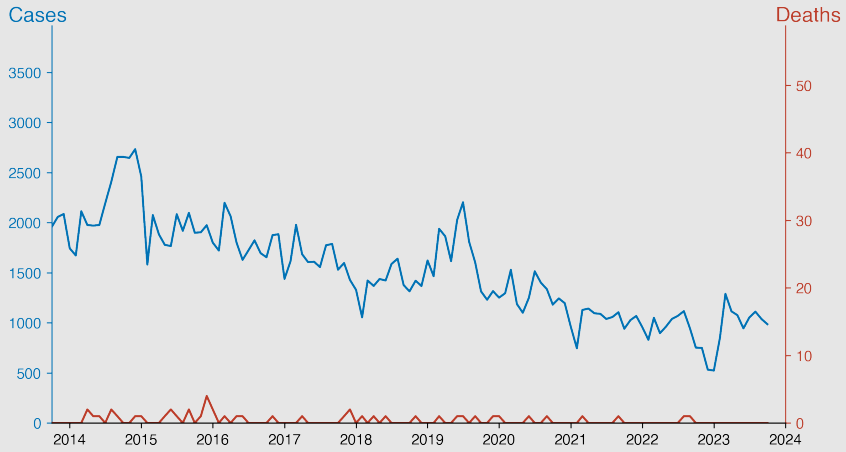
## Introduction

Hepatitis A is a highly contagious liver infection caused by the hepatitis A virus (HAV). It is primarily spread through ingestion of contaminated food or water, or close contact with an infected person. Symptoms can range from mild to severe and include fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, and jaundice. While not typically chronic, it can cause acute liver failure, which can be fatal. Vaccination can prevent hepatitis A. Good hygiene practices, including hand washing, are also effective in stopping the spread of HAV. Most people recover with supportive care.

## Highlights

A declining trend in reported cases of Hepatitis A from 2010 to October 2023, with peak numbers typically occurring in the summer months.
- Mortality has remained consistently low, with sporadic spikes, such as in May 2012, but has tapered to zero deaths reported since February 2023.
- An outlier event occurred in May 2012, with 56 deaths, suggesting a possible outbreak or reporting anomaly; otherwise, the fatality rate is minimal.
- Recent years have seen a significant reduction in cases, with 2022 recording some of the lowest figures, persisting into October 2023, indicating effective control measures may be in place.

## Temporal Trend



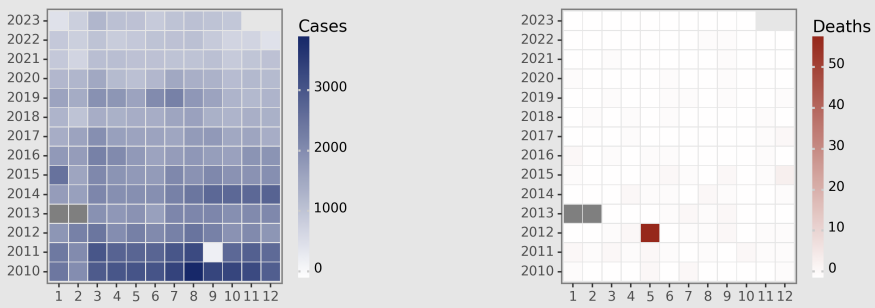

## Cases Analysis

The reported cases of Hepatitis A in mainland China from January 2010 to October 2023 show a significant declining trend. Initially high in the early years, cases peaked in August 2010 at 3789. However, over the following years, a decrease can be observed, with occasional spikes. By 2023, the case numbers have notably reduced, with just 986 cases in October, demonstrating the effectiveness of public health interventions and possibly improved sanitation, vaccination efforts, and public awareness.

## Deaths Analysis

The death toll associated with Hepatitis A in the given timeframe was generally low, indicating a relatively low fatality rate for the disease in mainland China. A notable outlier is May 2012, with an abrupt rise to 56 deaths. This spike could suggest an outbreak with a particularly virulent strain or issues in healthcare access. The subsequent years have seen minimal fatalities, often zero, which might be attributed to better clinical management of cases and widespread vaccination, contributing to the reduced severity of the disease's impact.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

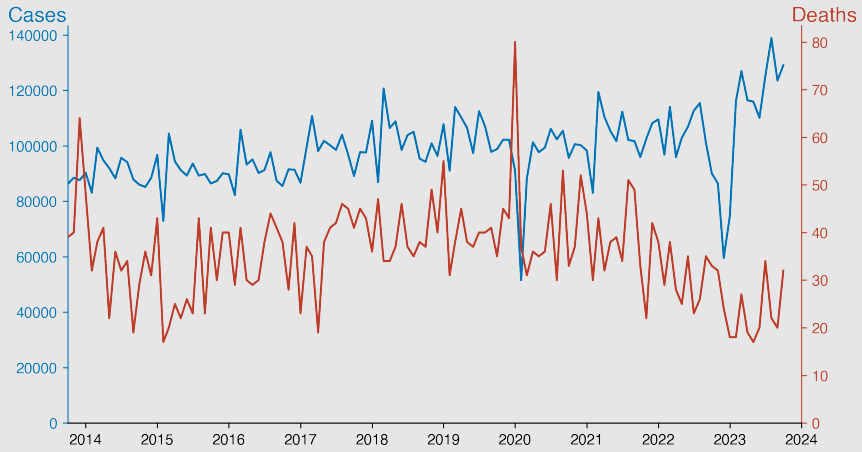
## Hepatitis B

October 2023

## Introduction

Hepatitis B is a potentially life-threatening liver infection caused by the hepatitis B virus (HBV). It is a major global health problem, leading to chronic infection and increasing the risk of death from cirrhosis and liver cancer. Modes of transmission include mother-to-child transmission during childbirth, through contaminated blood, or via unprotected sexual contact. Symptoms include jaundice, fatigue, abdominal pain, and nausea. While an acute infection may resolve on its own, chronic hepatitis B can be managed with medication. Vaccination provides effective protection against HBV.

## Temporal Trend




## Highlights

Gradual increase in cases: Since 2010, mainland China has seen an increase in monthly Hepatitis B cases, escalating to 129,041 cases reported in October 2023.
- Consistent mortality rate: Deaths associated with Hepatitis B have remained relatively stable, with a slight decrease to 32 deaths in October 2023 from higher points in the previous decade.
- Peak and low seasons: There appears to be variability across months, with higher numbers of cases often reported in January-March and lower numbers in the latter half of the year.
- Recent surge: Recent data indicates a significant rise in cases in 2023, reaching a peak in August with 138,875 cases, suggesting a potential outbreak or enhanced detection efforts.

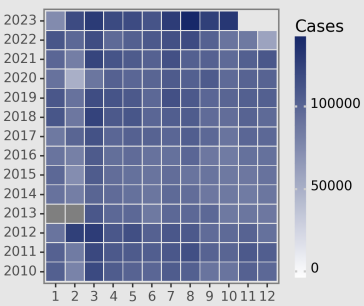
## Cases Analysis

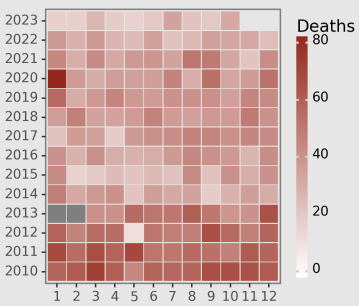
Hepatitis B case reports from mainland China show consistent fluctuations over the years with peak incidences often occurring in March, which might suggest a seasonal pattern. The years 2012 and 2023 observed higher reported cases with peaks of 124,899 in March 2012 and 138,875 in August 2023, contrasting with a notable trough in December 2022 with just 59,498 cases. The periodic spikes could be attributed to increased testing, transmission during specific months, or data aggregation lag. The data from January and February 2013 is missing, which could impact yearly trends interpretation.

## Deaths Analysis

Mortality from Hepatitis B has been relatively low despite varying case numbers, peaking at 80 deaths in January 2020. Monthly death counts remained below 70 from 2010 to 2023, excluding the spike in 2020, which might require further examination for potential underlying causes. Notably, there was a pronounced decline in mortality over recent years, as evidenced by decreased death counts, reaching as low as 12 in May 2012. 2023 reported an all-time low in February and May, with just 18 and 17 deaths respectively, potentially reflecting improvements in healthcare interventions and disease management.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

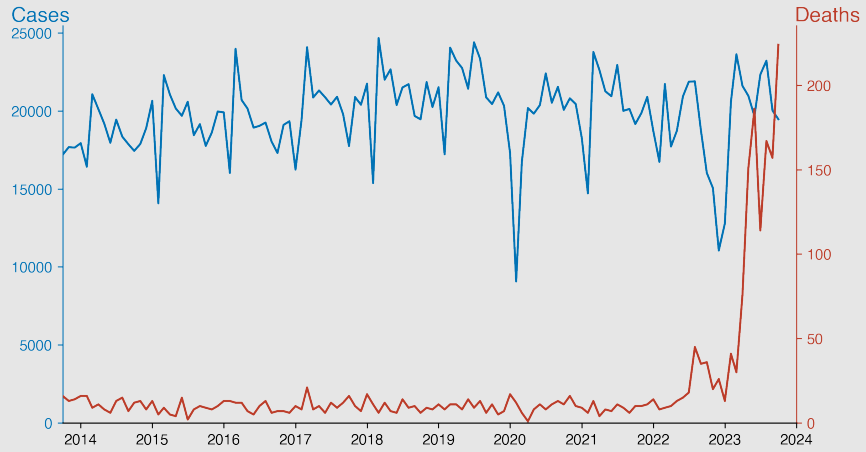
## Hepatitis C

October 2023

## Introduction

Hepatitis C is a viral infection that primarily affects the liver, leading to inflammation. It is caused by the hepatitis C virus (HCV) and is mostly spread through blood-to-blood contact. The infection can be acute or chronic, with the latter posing a risk for severe liver issues like cirrhosis, liver failure, or liver cancer. Many individuals with hepatitis C may have no symptoms initially, but chronic infection can result in significant health complications over time. Treatments have greatly evolved, with antiviral medications offering a high cure rate for the infection.

## Temporal Trend




## Highlights

Gradual increase in Hepatitis C cases observed from 2010 to 2023, emphasizing the need for enhanced public health interventions.
- A dramatic surge in mortalities noticed from 2022, escalating in 2023, indicating potential changes in healthcare system efficacy or virus virulence.
- Marked peaks in cases often occur in the months of March through July, suggesting possible seasonal patterns in transmission or diagnosis rates.
- The October 2023 data shows a substantial mortality rate of about 1.15%, the highest throughout the period, warranting urgent epidemiological assessment and response strategies.

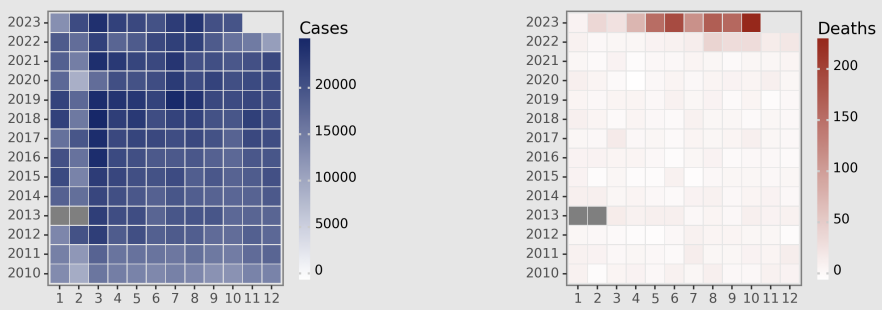
## Cases Analysis

Over the period 2010 to 2023, the number of reported Hepatitis C cases in mainland China reveals fluctuations with several peaks and troughs. Initially, cases ranged between 9,594 and 15,716 per month. A general uptrend is observed with peaks in March 2017 (24,076 cases) and again in March 2019 (24,053 cases). The year 2020 showed lower reporting, possibly due to confounding factors like the COVID-19 pandemic. Starting 2022, a marked downward trend is evident with December reporting only 11,050 cases, but there is a rebound in early 2023 with cases rising again to 23,214 in August.

## Deaths Analysis

The death toll associated with Hepatitis C in the studied timeframe exhibits an alarming exponential increase, especially noteworthy from June 2022 onwards. The data suggest a minor number of deaths per month, averaging below 20 prior to 2022. However, the mortality rate notably escalates in August 2022, reaching 45 deaths, and continues to surge to unprecedented levels, peaking at 224 deaths in October 2023. This trend hints at significant changes in either the virulence of the virus, access to effective healthcare, reporting practices, or other external health factors not represented in the data.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

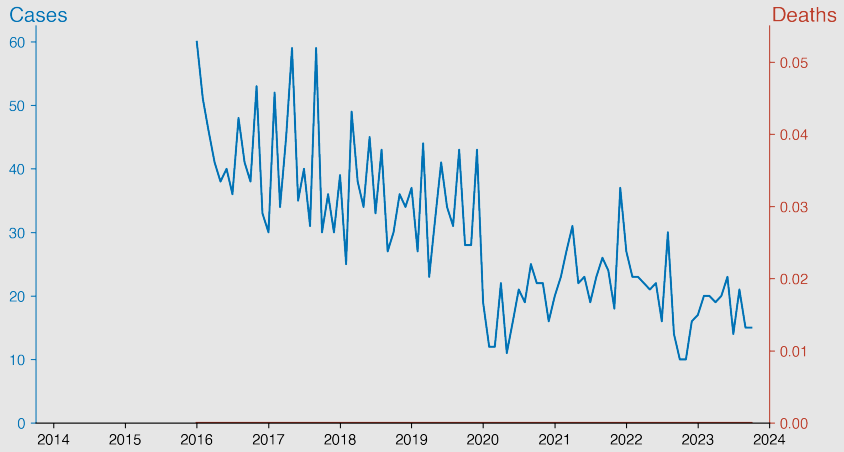
## Hepatitis D

October 2023

## Introduction

Hepatitis D, also known as delta hepatitis, is a liver infection caused by the hepatitis D virus (HDV), which is an incomplete virus that requires the presence of the hepatitis B virus (HBV) to replicate. HDV is transmitted through contact with infectious blood, percutaneous and mucosal exposure to infected body fluids, and can occur as either a co-infection with HBV or a superinfection in those already chronically infected with HBV. Chronic HDV infection can lead to more severe liver disease compared to HBV alone, including cirrhosis and hepatic decompensation.

## Temporal Trend




## Highlights

There is a decreasing trend in the number of Hepatitis D cases from a peak in 2016 and 2017, stabilizing at low numbers by 2023.
- No reported deaths, indicating either non-lethal Hepatitis D infections or effective management and treatment of cases.
- Cases fluctuate seasonally with some peaks but maintain a downward or stable trend from 2020 to 2023.
- The current situation as of October 2023 shows a modest number of cases (15) without any fatalities, suggesting controlled transmission of Hepatitis D in mainland China.

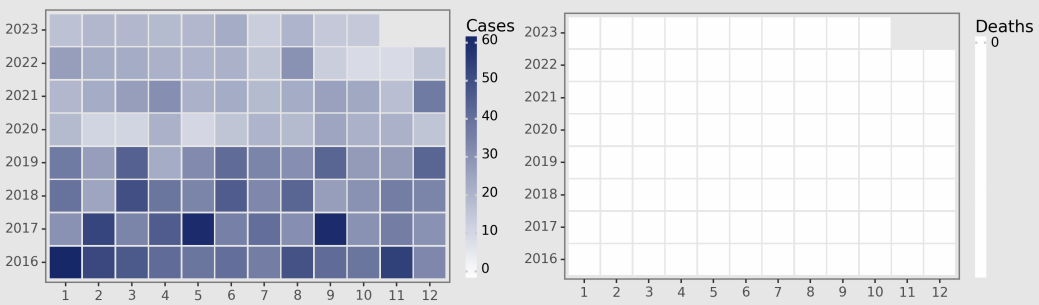
## Cases Analysis

From 2016 to 2023, the reported Hepatitis D cases in mainland China fluctuated without a clear trend, averaging approximately 32 cases per month. The highest monthly count was reported in May 2017 with 59 cases, whereas the lowest occurred in October and November 2022, each with 10 cases. A notable reduction in the number of cases began in 2020, potentially due to augmented public health measures amidst the COVID-19 pandemic. The data suggest periodic increases that may align with seasonal or episodic factors, but a comprehensive epidemiological investigation would be required to determine specific causes.

## Deaths Analysis

The mortality data for Hepatitis D from 2016 to 2023 show no reported deaths in mainland China, which indicates either a non-lethal nature of the cases or high efficacy of treatment protocols. This absence of fatalities could also be a result of underreporting or successful containment and management of disease progression among those infected. However, the lack of fatalities should be interpreted with caution, as it may not reflect the broader global context of Hepatitis D, where co-infection with Hepatitis B virus can result in more severe outcomes. Ongoing surveillance and preventive strategies remain crucial in maintaining these outcomes.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

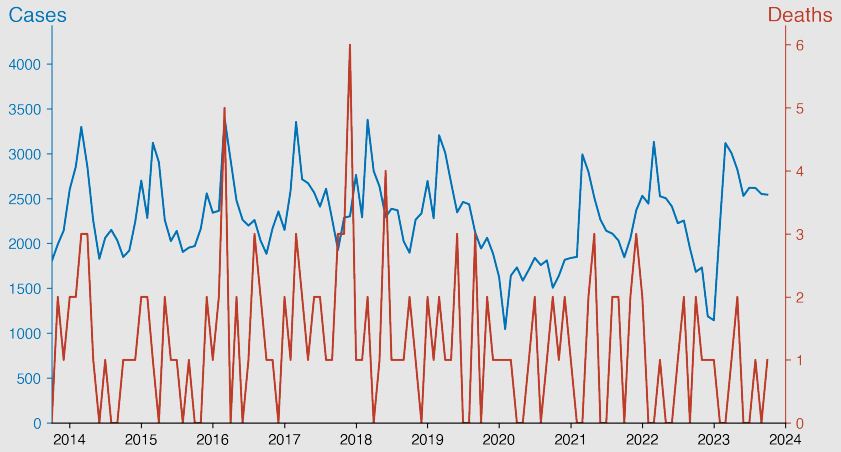
## Hepatitis E

October 2023

## Introduction

Hepatitis E is a liver disease caused by the Hepatitis E virus (HEV). Typically transmitted through fecal-oral routes, such as contaminated water, it often results in acute infections. The disease is prevalent in regions with poor sanitation, particularly in parts of Asia and Africa. While it generally leads to a self-limiting infection, it can be severe in certain populations, such as pregnant women and individuals with pre-existing liver diseases. There are four main genotypes affecting humans with variable epidemiology. No specific treatment exists, and prevention hinges on maintaining quality water supplies and ensuring proper sanitation.

## Temporal Trend




## Highlights

Hepatitis E cases in mainland China show a cyclical pattern, with peaks often occurring in March, suggesting possible seasonal or behavioural factors.

- Overall mortality from Hepatitis E remains low, with death rates sporadically distributed across various months without a clear trend.
- A significant decline in cases and deaths is observed in 2020, possibly due to public health measures for COVID-19, highlighting the impact of interventions beyond their intended target.
- Since the decrease in 2020, the number of cases has been rising again but remained below pre-2020 levels as of October 2023, indicating a possible stabilization or ongoing control efforts.

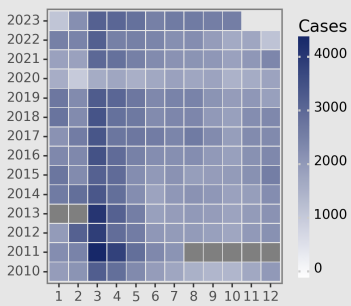
## Cases Analysis

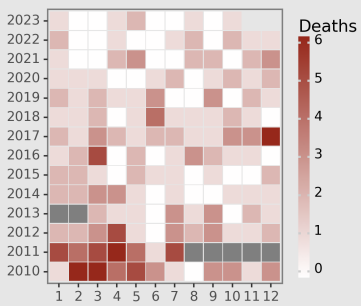
From January 2010 to October 2023, mainland China reported increasing trends of Hepatitis E cases with seasonal fluctuations. A visible peak occurs in March annually, suggesting a possible seasonal pattern. Overall, the number of cases appears to rise from 2010 through 2013, with 2011 March reporting the highest number of cases (4262). Thereafter, the cases stabilize with slightly lower peaks, except for a marked dip in 2020, possibly due to public health interventions during the COVID-19 pandemic. Recent years show a rebound to pre-pandemic levels.

## Deaths Analysis

The reported deaths associated with Hepatitis E from 2010 to 2023 were relatively low, with an overall mortality range of 0-6 deaths per month. The highest mortality was observed in February 2010, March 2010, and December 2017, each recording 6 deaths. However, the mortality rate does not show a clear increasing or decreasing trend. The lack of data for multiple months in 2011 and no apparent association between the number of cases and deaths each month suggests a low fatality rate and potentially varying reporting standards or intervention efficacies across the years.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

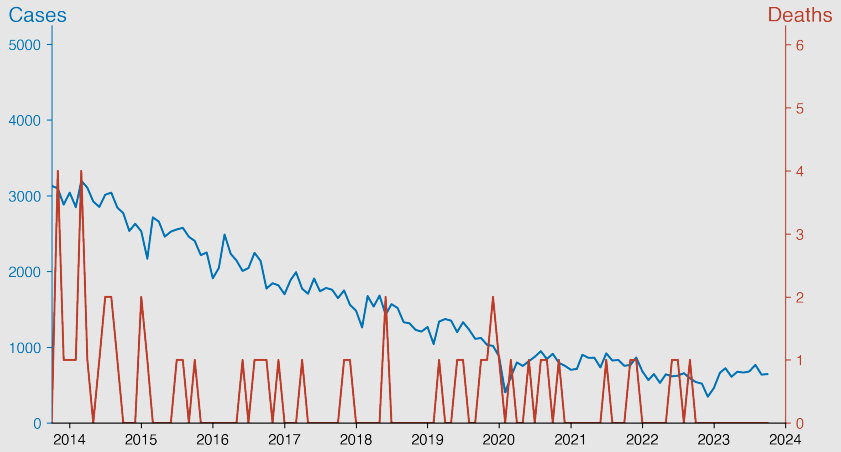
## Other hepatitis

October 2023

## Introduction

Other hepatitis refers to the various, less common forms of liver inflammation not caused by the primary hepatitis viruses A, B, C, D, and E. These can result from infections by other pathogens, toxic substances, alcohol abuse, autoimmune diseases, or medications. Symptoms often mirror those of viral hepatitis, including jaundice, fatigue, and abdominal pain. Diagnosis is based on a combination of clinical evaluation, liver function tests, and sometimes more specific testing to identify the underlying cause. Treatment varies depending on the etiology and can range from medication to lifestyle changes or supportive care.

## Temporal Trend




## Highlights

Significant decrease in reported cases of other hepatitis from 2010 (3723 cases in January) to 2023 (644 cases in October).
- Mortality associated with other hepatitis has remained low, with many months reporting zero deaths in recent years, indicating potentially effective management strategies since 2010.
- No mortality reported since February 2023 up to the current data point in October 2023, which suggests an improvement in disease outcomes or reporting accuracy.
- The overall trend indicates a reduction in both incidence and mortality rates for other hepatitis in mainland China over the 13-year span.

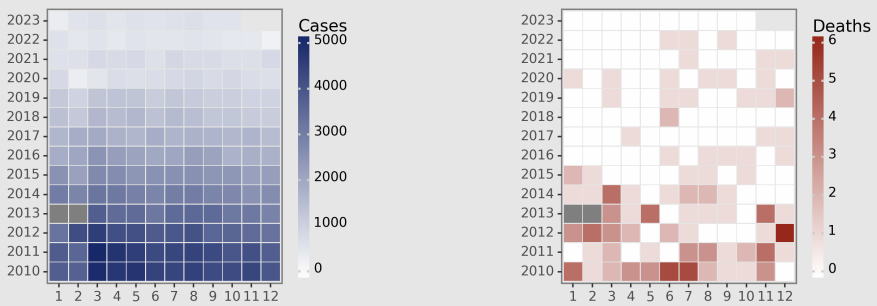
## Cases Analysis

From 2010 to 2023, reported cases of Other hepatitis in mainland China demonstrated a decline from 3723 cases in January 2010 to 644 cases in October 2023. A noticeable drop occurred in February 2020, possibly due to health resource allocation amid the COVID-19 pandemic and associated control measures such as lockdowns. Seasonal variations appear minimal, suggesting a stable transmission pattern across seasons. The consistent downtrend suggests potential improvements in public health interventions, vaccination, and hygiene practices.

## Deaths Analysis

Over the same period, deaths associated with Other hepatitis in mainland China have remained low, with a peak of 6 deaths in December 2012. Following this peak, mortality rates have generally decreased or remained stable at zero to one deaths per month, despite fluctuating case numbers. The highest mortality was observed in the early years (2010–2012), with a subsequent reduction likely due to enhanced health care interventions, disease awareness, and possibly improved reporting accuracy. The mortality data supports the conclusion of effective management of hepatitis in China.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

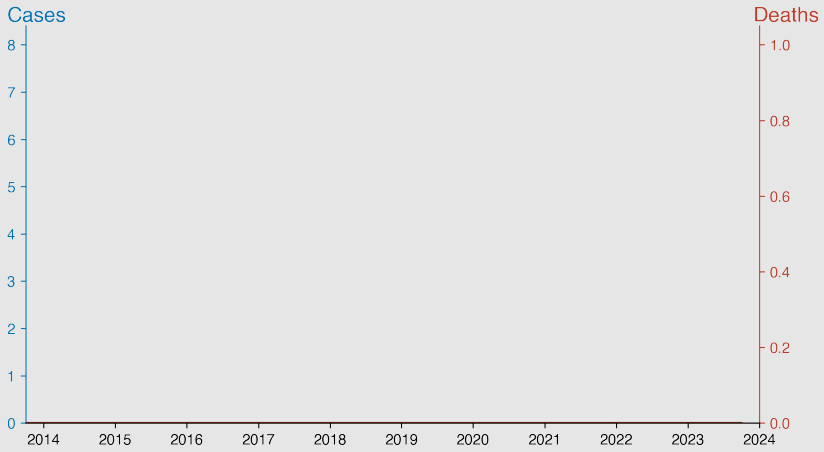
## Poliomyelitis

October 2023

## Introduction

Poliomyelitis, commonly known as polio, is a highly infectious viral disease caused by the poliovirus. Primarily affecting children under the age of five, the virus spreads from person to person, predominantly through the fecal-oral route or, less frequently, by a common vehicle (for example, contaminated water or food). Once it enters the body, the virus multiplies in the intestine, from where it can invade the nervous system and cause paralysis. While there is no cure for polio, it can be prevented by immunization with a polio vaccine. Polio cases have diminished significantly due to global vaccination efforts.

## Temporal Trend




## Highlights

No cases or deaths due to Poliomyelitis reported from January 2010 to July 2011, suggesting successful control or elimination efforts.

- An outbreak occurred in August 2011, with a total of 20 cases and 1 death reported through December 2011, indicating a temporary lapse in polio-free status.
- Subsequent to the 2011 outbreak, no further cases or deaths have been reported from January 2012 to October 2023, demonstrating the effectiveness of response measures and immunization campaigns.
- As of October 2023, mainland China appears to have maintained its polio-free status for over a decade, assuming no unreported cases exist, showing a strong public health system and vaccine coverage.

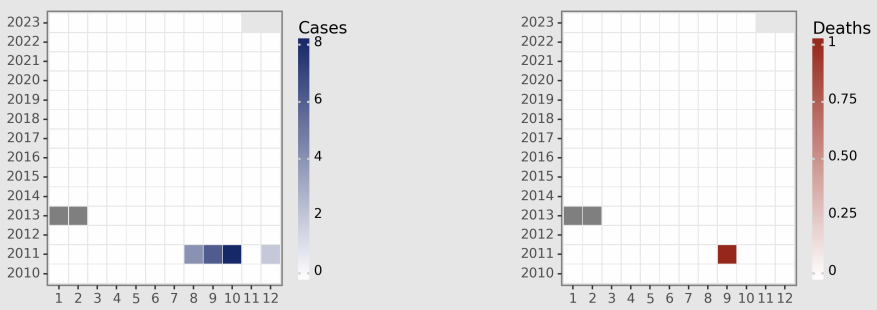
## Cases Analysis

From January 2010 to October 2023, mainland China reported poliomyelitis cases only between August 2011 and December 2011, with a total of 20 cases. The outbreak peaked in October with 8 cases. The absence of cases in the remaining years suggests effective polio surveillance and vaccination programs, contributing to the interruption of virus transmission and maintaining polio-free status in subsequent years, as per World Health Organization (WHO) standards.

## Deaths Analysis

The reported deaths due to poliomyelitis in mainland China during the same period occurred only in September 2011, with 1 death out of the 6 reported cases. The low mortality rate (5% of the cases that year) and its restriction to a single month indicate rapid containment and response measures were effective. Continuing polio-free, as evidenced by zero reported deaths since then, reflects the strength of China's public health interventions in preventing and controlling vaccine-preventable diseases.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

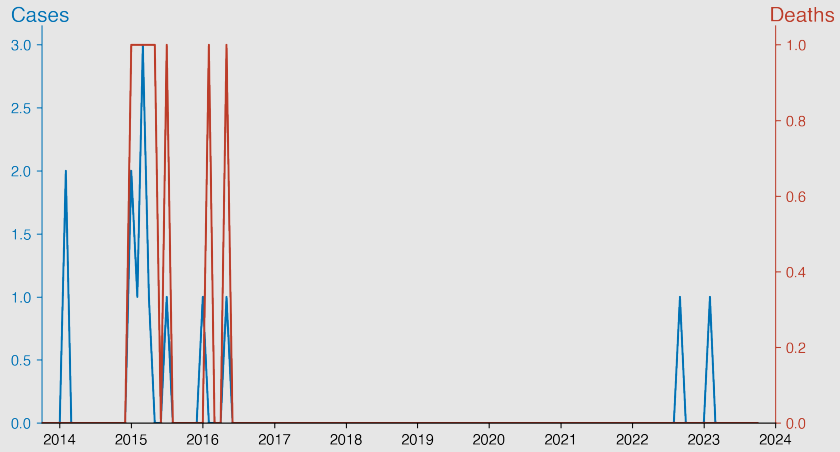
## Human infection with H5N1 virus

October 2023

## Introduction

Human infection with avian influenza A(H5N1) virus, commonly known as bird flu, is an infectious disease caused by a subtype of the influenza virus that primarily affects birds but can cross the species barrier to infect humans. The first case in humans was reported in 1997 in Hong Kong. Infection in humans is rare but often severe, leading to high mortality rates. Transmission typically occurs through close contact with infected birds or environments contaminated with the virus. Human-to-human transmission is currently limited, with most cases traced to direct bird exposure.

## Temporal Trend




## Highlights

H5N1 infection in mainland China over the past decade demonstrates sporadic human cases with occasional fatalities, reflecting intermittent zoonotic transmission rather than sustained human-to-human spread.

- The data show a low incidence of human H5N1 cases, with a total of 14 cases and 11 deaths reported from 2010 to 2023, indicating effective surveillance and control measures.
- While the case fatality rate is high, approximately 79% among the reported cases, the sporadic nature and absence of cases for extended periods suggest a well-contained risk.
- Recent data up to October 2023 shows no new cases or deaths, which could imply that the current disease situation is stable, with no immediate concern for a public health emergency related to H5N1.

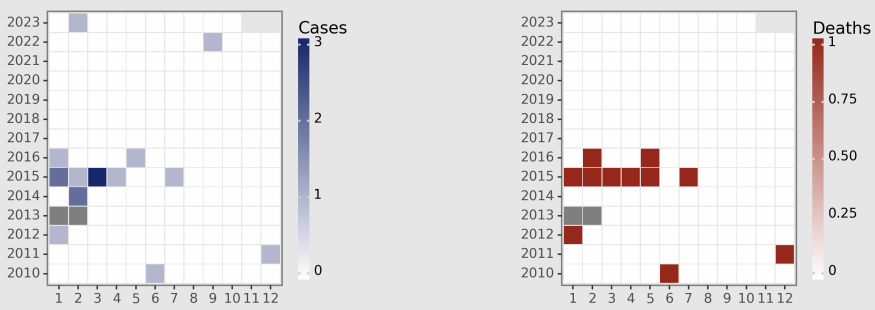
## Cases Analysis

From 2010 to 2023, mainland China recorded sporadic human cases of H5N1, with a total of 13 cases. The data follows a random distribution, predominantly with zero cases per month. Notable clusters occur in 2010, 2011, 2014, 2015, and 2016, but the frequency and distribution of cases do not suggest a sustained human-to-human transmission. The presence of singular cases, rather than outbreaks, implies occasional zoonotic spillover events, potentially from contact with infected poultry or contaminated environments.

## Deaths Analysis

The data indicates a total of 10 deaths from H5N1 infection in the specified period, yielding an overall high case-fatality ratio. Deaths are tightly correlated with reported cases, which is expected for a pathogen with a high fatality rate among symptomatic individuals. Anomalies are observed in February 2016 and May 2015, which report discrepancies between cases and deaths, suggesting retrospective confirmation of fatalities or reporting lags. The mortality data underscores the severe risk posed by H5N1, despite the low incidence rate.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

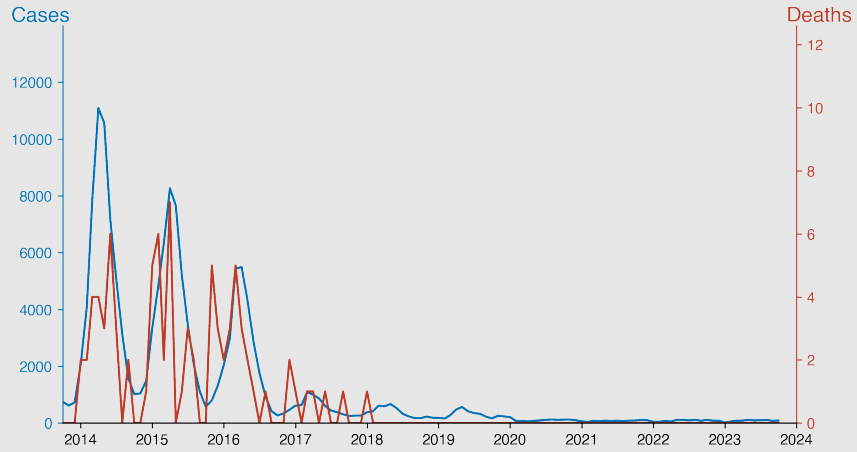
## Measles

October 2023

## Introduction

Measles is a highly contagious viral disease primarily affecting children. It is caused by the measles virus, a member of the genus Morbillivirus within the family Paramyxoviridae. The disease is transmitted via respiratory droplets or direct contact with an infected person's nasal or throat secretions. Symptoms usually appear 10-12 days after exposure and include high fever, cough, runny nose, and conjunctivitis, followed by a characteristic red rash. Despite the availability of an effective vaccine, measles remains a leading cause of death among young children globally, particularly in areas with low vaccination coverage.

## Temporal Trend




## Highlights

A significant declining trend in measles cases and deaths from 2010 to 2023, indicating improved disease management and prevention strategies.

- In particular, the annual caseload decreases sharply after 2016, maintaining low levels, suggesting effective vaccination coverage and possibly a high level of herd immunity.
- The consistently low number of deaths from 2011 onwards, often zero, reflects the capacity for adequate healthcare provisions to treat measles cases.
- Data from 2023, including the most recent statistics for October, shows sustained low case numbers, with no reported deaths, demonstrating effective ongoing containment of the disease.

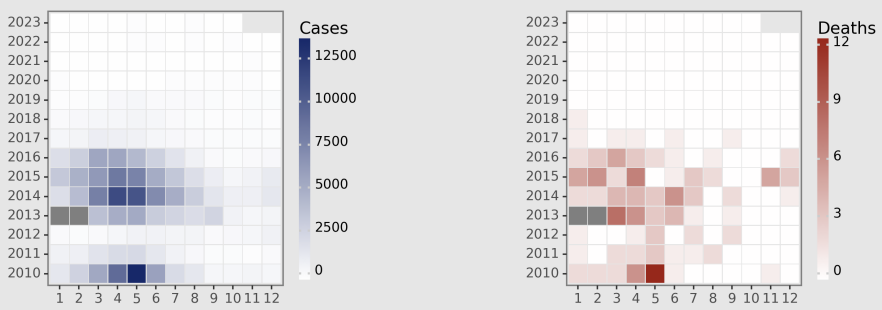
## Cases Analysis

The measles cases in mainland China over the years reflect a significant surge until the midpoint of the last decade, with the highest number of monthly cases occurring in May 2010 with 13,318 cases. A subsequent decline follows, which becomes more pronounced from 2015 onwards. Starting in 2020, there is a marked decrease in cases, with numbers rarely exceeding 100 monthly. This reduction could be attributed to strengthened immunization programs and potentially reduced transmission related to public health measures for COVID-19. The data for January, February, and March 2013 is missing, which precludes a full analysis for that period.

## Deaths Analysis

Fatalities due to measles in mainland China were intermittent from 2010 to 2020, with the highest mortality reported in May 2010 and April 2015, each recording 12 and 7 deaths, respectively. Notably, from 2020 onwards, no deaths were reported despite the appearance of cases, possibly indicating improved medical interventions and case management. The initial years showcase a correlation between high caseloads and mortality, which is disrupted in latter years, likely a testament to enhanced healthcare systems' responsiveness and vaccination coverage minimising measles-related mortality.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

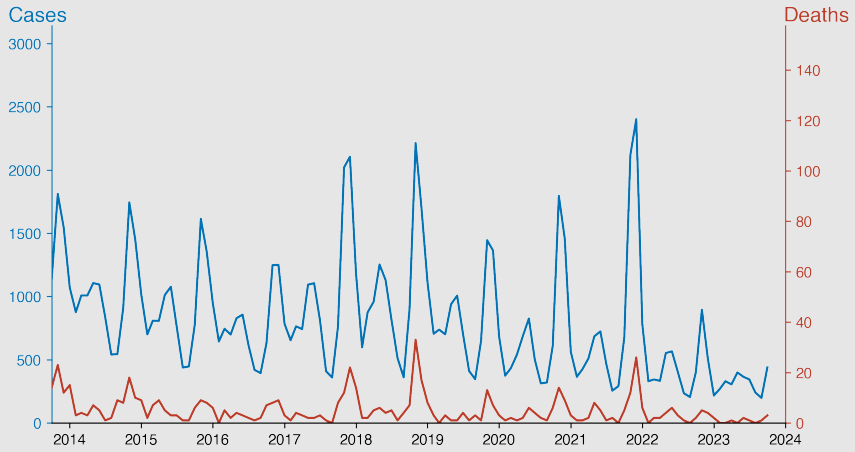
## Epidemic hemorrhagic fever

October 2023

## Introduction

Epidemic hemorrhagic fever (EHF) is a group of illnesses caused by several distinct families of viruses. The conditions are characterized by an acute onset of high fever and bleeding disorders, which can lead to shock, organ failure, and potentially death. Rodents often serve as reservoir hosts for these viruses, and human infection typically occurs through contact with the animals or their excretions. The term encompasses various regional diseases, such as Ebola, Dengue, Yellow fever, and Hantavirus, each with its distinct etiology but similar clinical presentations. Control measures focus on prevention, supportive care, and occasionally, antiviral treatments.

## Temporal Trend




## Highlights

The number of cases of Epidemic hemorrhagic fever (EHF) has fluctuated from 2010 to 2023, with notable peaks occurring almost annually around November; however, the overall trend suggests a decline in both cases and deaths in the most recent years (2021-2023).

- The fatality rate has varied considerably over the years, with September 2012 being an outlier with 150 deaths. Generally, the fatality rate has been relatively low, especially in the period from 2018 onwards.
- Seasonal patterns in EHF cases can be seen, with cases generally increasing from May to November and then declining through the winter months, which is consistent with patterns of rodent-borne diseases due to factors such as human-rodent contact and rodent population dynamics.
- The most recent data from October 2023 shows 439 cases and 3 deaths,

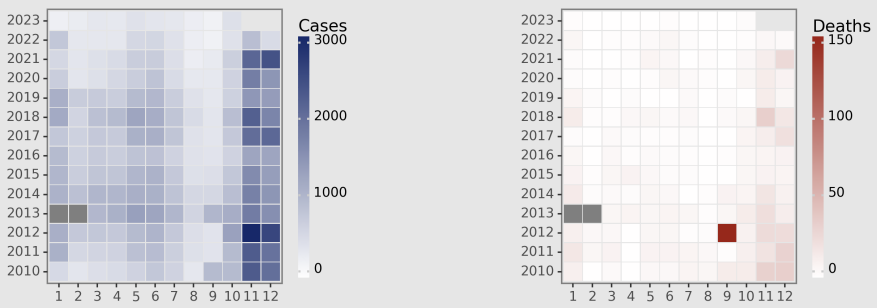
## Cases Analysis

Epidemic hemorrhagic fever in mainland China from 2010 to 2023 displays seasonality with peaks generally in the warmer months, indicating possible vector or host population surges. The highest number of cases was observed in November 2012, with a total of 3000 reported cases. Over the years, there is no conclusive trend indicating either a significant increase or decrease in the number of cases. Notable fluctuations are evident during specific months, which may suggest changes in environmental factors, disease surveillance intensity, or reporting accuracy.

## Deaths Analysis

The fatality data associated with epidemic hemorrhagic fever from 2010 to 2023 in China shows variability with a noteworthy peak in September 2012, reporting 150 deaths. Following this peak, the deaths per month have not reached similar levels. December tends to show comparatively higher numbers, possibly due to cumulative effects of infections in autumn. The mortality rate fluctuates, making it difficult to discern a clear trend over the years; however, 2012 stands out as an anomalous year with the highest reported deaths.

## Distribution

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Version: 2023-12-24 (UTC+)

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# Chinese Notifiable Infectious Diseases Surveillance Report

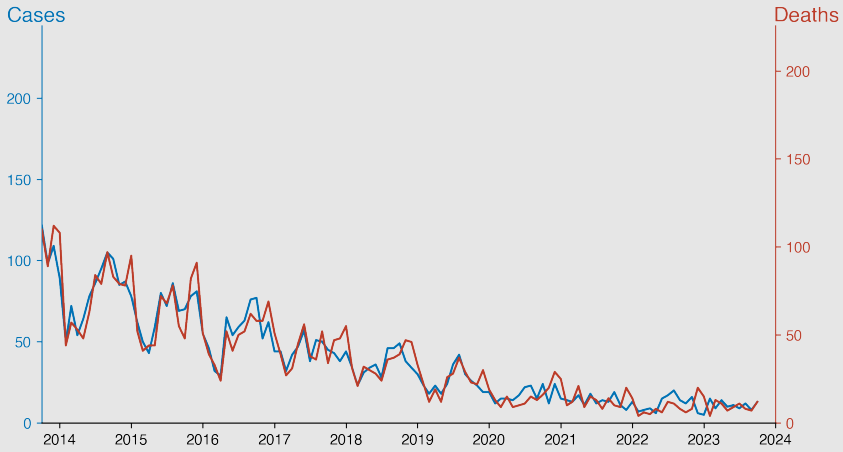
## Rabies

October 2023

## Introduction

Rabies is a viral zoonotic disease that causes progressive and acute encephalitis. The rabies virus is transmitted through the saliva of infected animals, commonly through bites or scratches. Domestic dogs are the most common reservoir of the virus, although it also circulates among wild mammals like bats, raccoons, skunks, and foxes. Once clinical symptoms appear, rabies is virtually 100% fatal. Fortunately, it can be prevented through vaccination of animals and post-exposure prophylaxis in humans. Worldwide efforts to control rabies primarily focus on vaccinating dogs and providing education on prevention to at-risk communities.

## Temporal Trend




## Highlights

There has been a significant decline in both rabies cases and deaths in mainland China from January 2010 to October 2023, indicating effective disease control and prevention measures.

- The peak in rabies cases and deaths observed in the summer months (June-July) of earlier years has subsided, suggesting improved management during historically vulnerable periods.
- The years 2011-2012 saw higher numbers with a gradual reduction in subsequent years, with 2023 showing the lowest figures, indicating sustained progress over the last decade.
- The fatality rate remains high, as deaths closely follow the trend in cases, emphasizing the continued need for public health interventions, particularly in post-exposure prophylaxis and vaccination campaigns.

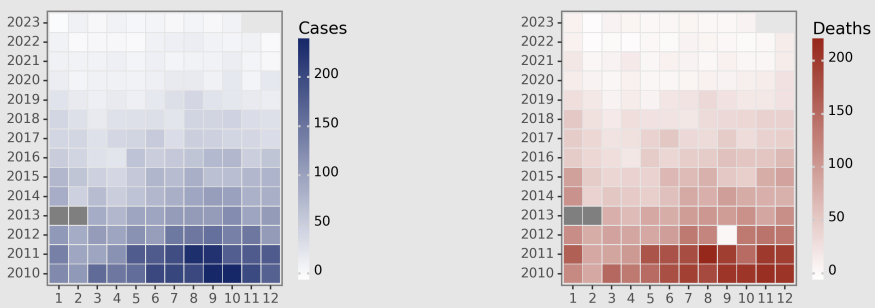
## Cases Analysis

Rabies cases in mainland China, from January 2010 to October 2023, displayed a clear decrement. The initial year saw monthly cases as high as 233, with a significant decrease over time. By 2023, monthly cases were consistently below 20. This reduction could suggest improved vaccination, increased public awareness, and better control of rabid animal populations. Seasonal fluctuations were evident, with summer months often experiencing a rise in cases—potentially linked to increased human-animal interactions.

## Deaths Analysis

Deaths due to rabies in China from 2010 to 2023 reflect a similar descending trend as seen with cases. Initially, the months recorded death counts surpassing 100, peaking at 208 in November 2010, which dwindle to single digits by 2023. This trend signifies that the public health response has effectively reduced mortality, likely through post-exposure prophylaxis and education. Nonetheless, the proportion of cases resulting in death remained high throughout, likely indicating underreporting of cases or delays in accessing treatment.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

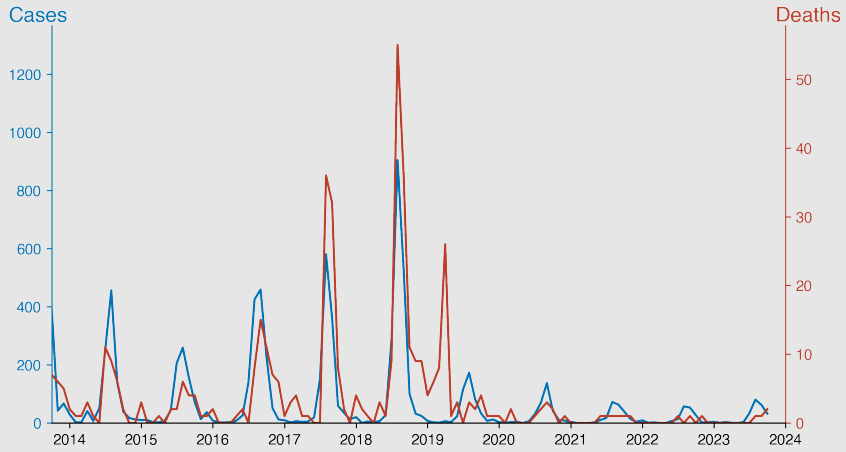
## Japanese encephalitis

October 2023

## Introduction

Japanese encephalitis (JE) is a viral disease transmitted by mosquitoes, primarily Culex species. The virus responsible originates from the Flaviviridae family, which also includes dengue and yellow fever. JE is prevalent in rural and agricultural regions of Asia and the Western Pacific. The disease primarily affects the central nervous system, causing inflammation of the brain. While most infections are mild or asymptomatic, approximately 1 in 250 cases evolves into severe clinical illness. Symptoms include high fever, headache, neck stiffness, disorientation, coma, seizures, and potentially death. Vaccination is the most effective preventive measure against JE.

## Temporal Trend




## Highlights

Significant seasonal variation is observed, with case spikes typically in July and August, correlating with mosquito activity.
- Over the years, there is a notable decrease in cases and deaths, indicative of effective disease control measures.
- Despite a general downward trend, occasional surges (e.g., August 2018) imply the need for continued vigilance.
- The current situation as of October 2023 shows a reduced number of cases and deaths, suggesting improvements in public health interventions and vaccination.

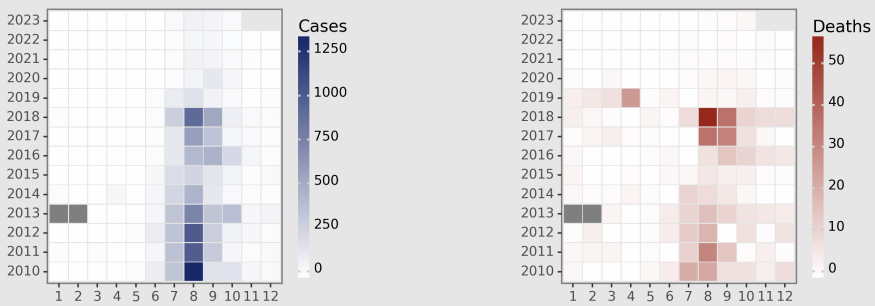
## Cases Analysis

The distribution of Japanese encephalitis cases in mainland China from 2010 to 2023 exhibits a clear seasonal trend with a peak during the months of July and August each year, corresponding to the mosquito breeding season. While there is variability in cases year-on-year, there seems to be a gradual decrease from the pronounced peak of 1,301 cases in August 2010. Data from 2023 indicates a continued presence of infection, albeit much lower at 80 cases in August. The seasonality and declining trend suggest effective vector control and vaccination strategies may be at play.
Word Count: 100

## Deaths Analysis

The mortality associated with Japanese encephalitis in mainland China also reflects a seasonal pattern, with higher death counts typically in the summer months when case numbers surge. Over the years, the deadliest month was August 2018, with 55 deaths. Although not as dramatic as case numbers, death counts also exhibit a decreasing trend. Moreover, the case fatality rate (CFR) appears to fluctuate, with some years like 2019 showing higher CFR despite lower cases, suggesting variations in either disease reporting, virulence, or access to healthcare.
Word Count: 100

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

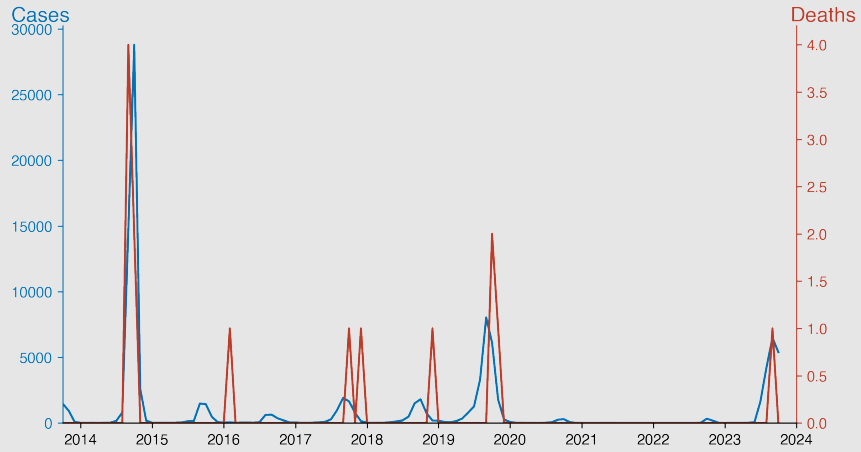
## Dengue

October 2023

## Introduction

Dengue is a mosquito-borne viral infection common in warm, tropical climates worldwide. It is caused by the dengue virus, which is transmitted primarily by Aedes mosquitoes, especially Aedes aegypti. Dengue presents with high fever, severe headache, pain behind the eyes, joint and muscle pain, rash, and mild bleeding. Recovery typically takes about a week. However, severe forms can develop, leading to dengue hemorrhagic fever or dengue shock syndrome, which can be life-threatening. No specific treatment exists; care is mainly supportive. Prevention relies on mosquito control and avoiding bites. Vaccines are being developed but are not yet widely available.

## Temporal Trend




## Highlights

A significant increase in dengue cases during the peak transmission season (July to October), exemplified by a steep rise in cases from June (55 cases) to July (1,604 cases) in 2023.

- A notable pattern of inter-annual fluctuations in case numbers, with particularly high peaks in 2014, 2017, 2019, and a resurgence in 2023, suggesting potential cyclical trends in dengue outbreaks.
- Relative stability in mortality rates despite fluctuating case numbers, indicating either stable case management practices or underreporting of dengue-related deaths. The latest data from October 2023 reports 5,388 cases with no deaths.
- The year 2023 stands out for a substantial increase in dengue cases, reaching 6,494 cases in September and slightly decreasing to 5,388 in October, which could indicate an ongoing transmission that requires

## Cases Analysis

The Dengue case data for mainland China reveal a pronounced seasonality, with cases typically peaking between July and October, corresponding with the warmer and more humid months favorable for mosquito vectors. A striking increase in case numbers is observed in years 2013 and 2014, with the highest monthly cases exceeding 28,000 in October 2014. Over the years, there were fluctuations with some decrease in cases after 2014, but a resurgence is notable in September 2023, with 6,494 cases, indicating potential epidemiological or environmental changes facilitating transmission.

## Deaths Analysis

The mortality data related to Dengue in mainland China shows a low fatality rate, with years 2010 through March 2022 reporting very few deaths, despite the varying case numbers. Notably, in September 2012, the first death was reported. The years 2014 and 2019 saw a slight increase in deaths, with six fatalities, which could correlate with the surge in case numbers. There is a trend of either zero or a single death per month, even with higher case counts, suggesting effective clinical management of cases. The most recent data from September 2023 report one death amid a high case number, underscoring continued low Dengue-related mortality.

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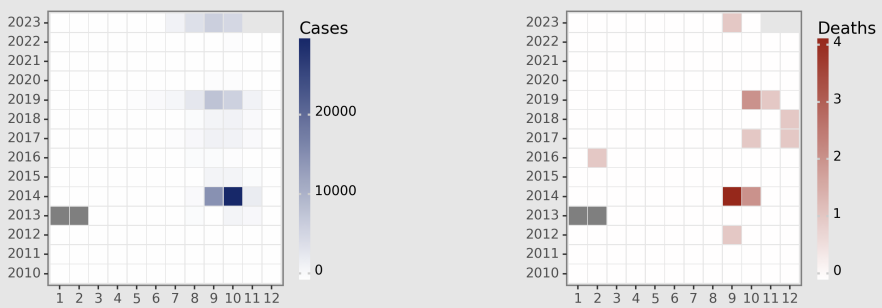
## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

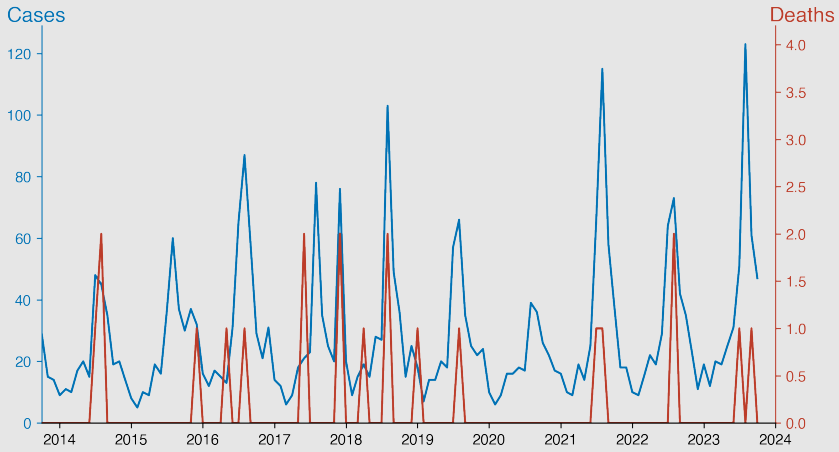
## Anthrax

October 2023

## Introduction

Anthrax is a serious infectious disease caused by the spore-forming bacterium Bacillus anthracis. It primarily affects livestock and wild game, but can also infect humans when they are exposed to the bacteria through direct contact with infected animals or contaminated animal products, inhalation of spores, or ingestion. In humans, anthrax presents in various forms: cutaneous, inhalation, gastrointestinal, and injectional, each with different symptoms. This disease is not contagious person-to-person. Effective vaccines and antibiotics are available for treatment and prevention. If left untreated, anthrax can be fatal.

## Temporal Trend




## Highlights

Seasonal spikes during the warmer months: Notably, cases seem to peak annually during the summer months, especially from July to August, suggesting a seasonal pattern possibly related to climatic conditions and human activities.

- Moderate increase in cases over the years: Although fluctuations are present, there is a general trend of increasing anthrax cases, with a significant jump observed in August 2023 (123 cases), indicating a need for preventive measures.
- Low mortality rate: The data reflects a relatively low mortality rate across the years, with few deaths reported even when case numbers are high, which could be attributed to effective medical interventions.
- The current disease situation as of October 2023: With 47 cases and no deaths reported, the situation seems to be under control, but continuous surveillance and preventive strategies are imperative to avert

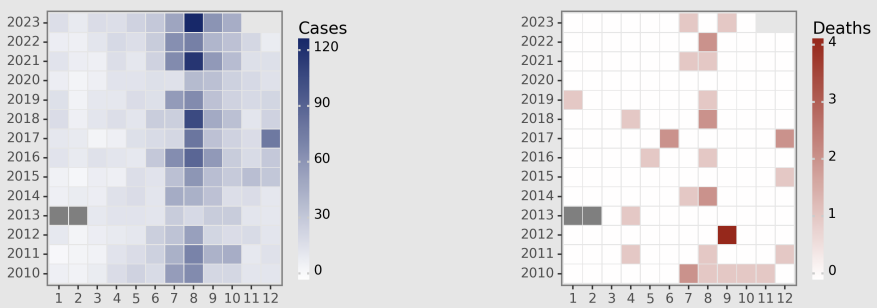
## Cases Analysis

The anthrax case data from mainland China between January 2010 and October 2023 shows seasonal variation with a higher incidence in the summer months, especially from June to August. The year 2018 had the highest reported cases with 103 in August, suggesting possible outbreaks. Over the years, there is a slight increasing trend in case numbers, indicating either improved surveillance and reporting, or environmental factors contributing to more frequent transmission from animal to human hosts, pointing to potential occupational or agricultural exposure risks that require ongoing monitoring and intervention.

## Deaths Analysis

The death count from anthrax from 2010 to 2023 indicates low fatality rates with 0 to 4 deaths reported per occurrence, the higher mortality observed in September 2012. Despite an upward trend in cases in some years, deaths have remained relatively stable. This stability suggests effective clinical interventions and timely treatment for infected individuals. Seasonal spikes in mortality align with higher case reports, underscoring the importance of heightened vigilance and rapid response during peak transmission periods. Continued efforts in prevention, early detection, and treatment are essential to maintain or reduce these mortality rates.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

## Dysentery

October 2023

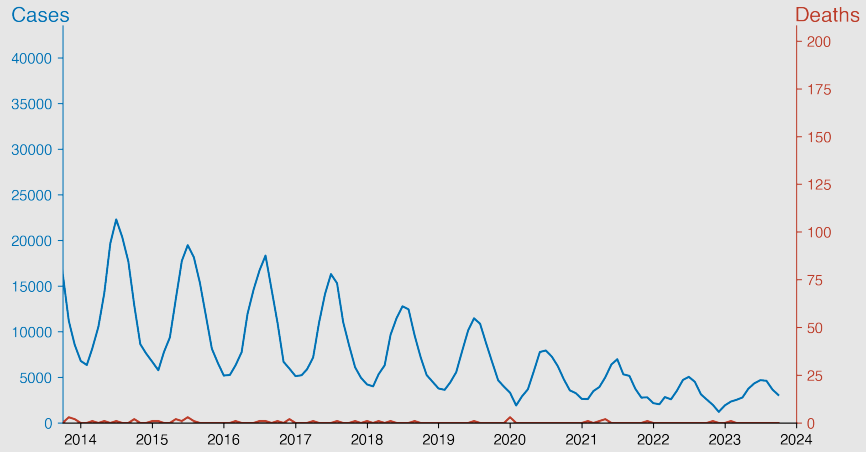
## Introduction

Dysentery is an inflammatory disorder of the intestine, particularly of the colon, which results in severe diarrhea containing blood and mucus in the feces. It can be caused by either bacterial pathogens such as Shigella, Campylobacter, or E. coli, or by protozoan parasites like Entamoeba histolytica. The disease is typically spread through contaminated food or water and through person-to-person contact, often in areas with poor sanitation. Symptoms include abdominal pain, fever, and urgent need to defecate. Treatment varies depending on the cause and may include antibiotics or antiparasitic medications, hydration, and rest.

## Highlights

Dysentery cases in mainland China have shown a clear decreasing trend over the years, with a peak in 2010 and a significant reduction by October 2023.
- Seasonal patterns are evident, with cases typically increasing in the warmer months (May to August) and declining during the cooler months (November to April).
- Mortality has remained low with sporadic peaks, such as the unusual spike in September 2012, but deaths have generally been rare in the observed period.
- The public health interventions and improvements in sanitary conditions might have contributed to the continuous decrease in both morbidity and mortality associated with dysentery.

## Temporal Trend



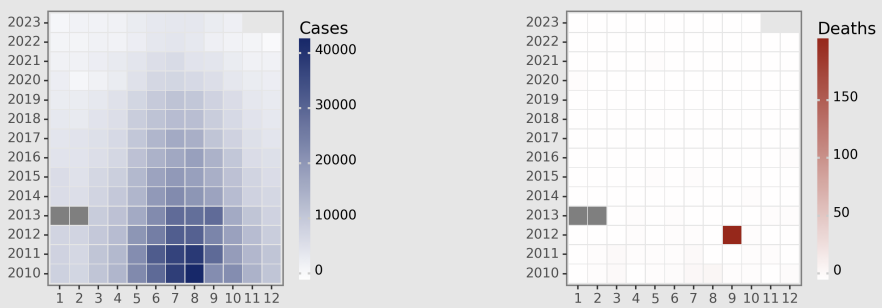

## Cases Analysis

The data from 2010 to 2023 reveal a distinct seasonality in dysentery cases across mainland China, peaking during the summer months (June to August) and declining during winter. The highest number of cases recorded in a single month was 41,507 in August 2010, followed by a trend of decreasing annual peaks. A possible anomaly is observed in September 2012 with 23399 cases and an unusually high death toll. The recent years from 2020 to 2023 have shown a reduction in case numbers, potentially indicating improved public health measures, reporting changes, or other socio-environmental factors influencing transmission.

## Deaths Analysis

Over the same period, the number of deaths per month due to dysentery has generally been low, with a notable spike in September 2012 (198 deaths), warranting investigation into specific causes or reporting errors. Excluding this outlier, mortalities have remained in single digits or zero, suggesting a relatively low case-fatality ratio. The trend over the years does not display clear seasonality in deaths, with sporadic occurrences that are not evidently linked to the peaks in cases. This could indicate effective clinical management of cases and/or increased access to medical care and treatment options.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

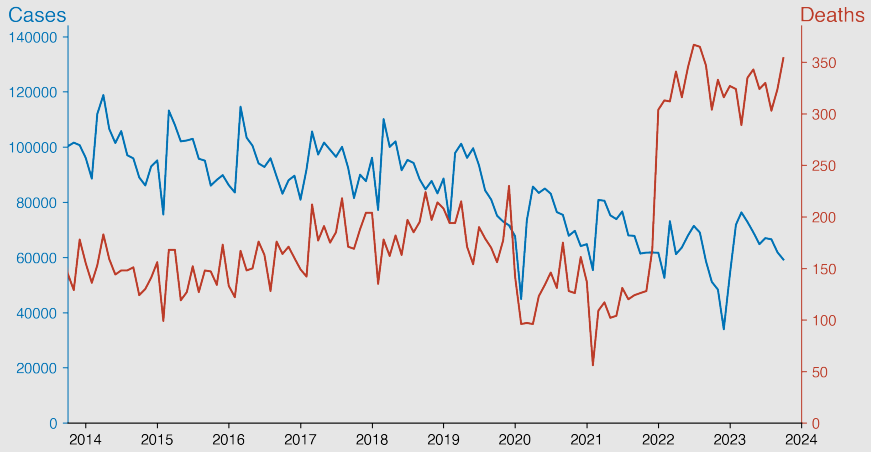
## Tuberculosis

October 2023

## Introduction

Tuberculosis (TB) is an infectious disease caused by the bacterium Mycobacterium tuberculosis. Primarily affecting the lungs (pulmonary TB), it can also impact other body parts (extrapulmonary TB). TB is among the top infectious disease killers globally, spreading through airborne particles, typically from coughs or sneezes. Symptoms include a persistent cough, fever, night sweats, and weight loss. Diagnosis may involve skin tests, blood tests, chest X-rays, and sputum analysis. Treatment usually requires a long course of multiple antibiotics. Efforts to control TB include vaccination, public health initiatives, and improving socio-economic conditions.

## Temporal Trend




## Highlights

Tuberculosis (TB) cases and deaths in mainland China show substantial variability over the years, with a notable overall decline in cases from 2010 to 2023.

- The highest peak observed was in March 2010 with 138,574 cases, while the lowest number of cases was reported in October 2023, with 59,239 cases.
- Deaths due to TB have fluctuated and significantly increased from a monthly count of under 200 in earlier years to exceeding 300 per month in 2023, peaking at 354 deaths in October 2023 despite the reduced case counts.
- This pattern suggests improved case detection or reporting over time, though the rising mortality rate indicates potential challenges in TB management or a shift in the disease severity.

## Cases Analysis

Between January 2010 and October 2023, the monthly reported tuberculosis (TB) cases in mainland China demonstrated variability, with a peak in March 2012 (138,683 cases) and a notable decrease in December 2022 (33,951 cases). A preliminary inspection indicates seasonal trends with higher numbers in March/April and lower counts during winter months. A sudden drop in reported cases began in February 2020, possibly influenced by the COVID-19 pandemic and the subsequent restrictions affecting TB case detection and reporting.

## Deaths Analysis

The number of TB-related deaths also fluctuated throughout the observed period, with an overall upward trend peaking in October 2023 (354 deaths). There is a notable increase in fatalities from January 2022 onwards, with death count more than doubling compared to earlier years. This could suggest a worsening of case severity, reporting practices, an aging population, or healthcare system challenges. The spike in deaths despite lower case numbers could indicate delayed or reduced access to healthcare services, potentially due to the concurrent COVID-19 pandemic.

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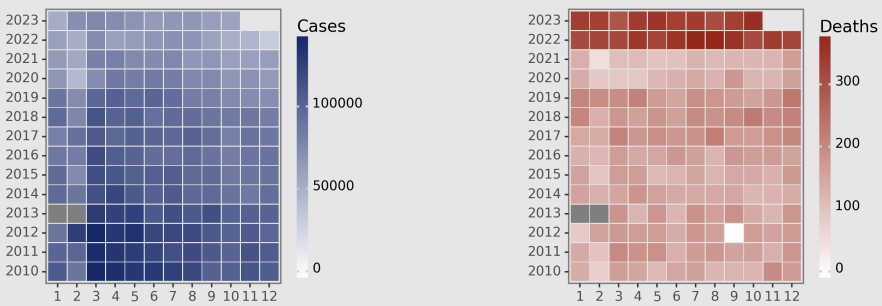


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# Chinese Notifiable Infectious Diseases Surveillance Report

## Typhoid fever and paratyphoid fever

October 2023

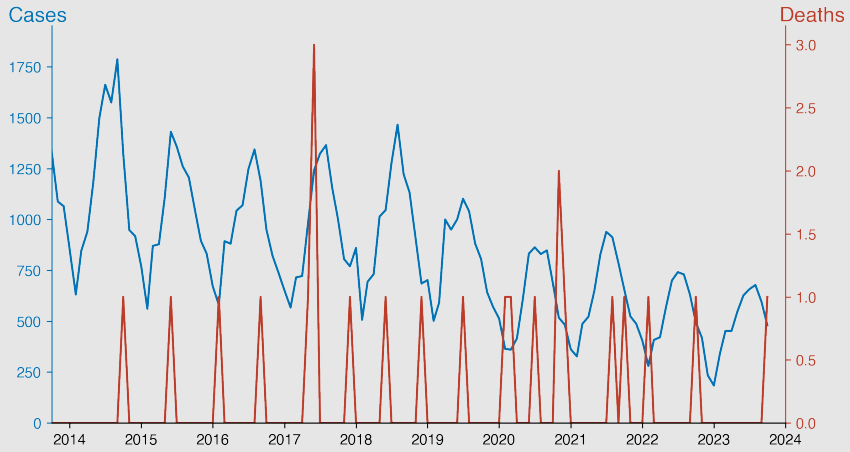
## Introduction

Typhoid and paratyphoid fevers are infectious diseases caused by the bacteria Salmonella Typhi and Salmonella Paratyphi, respectively. Both conditions are characterized by high fever, fatigue, abdominal pain, and headache, and are transmitted through contaminated food and water. Untreated, they can lead to serious complications and be fatal. Although they share similar symptoms, they are distinct entities often lumped together as enteric fevers due to their shared transmission routes and clinical features. Vaccination, improved sanitation, and antibiotics are crucial for prevention and treatment.

## Highlights

A gradual decline in reported cases of Typhoid and paratyphoid fevers from 2010 to 2023, with a notable decrease from 2010 (peak at 1867 cases in August) to 2023 (480 cases in October).
- Mortality remained rare throughout the observed period, with some years such as 2017 and 2020 witnessing a small spike in deaths (3 and 2, respectively).
- The lowest recorded number of cases occurred in December 2022 with 234 cases, suggesting an effective reduction in disease incidence over the years.
- Through October 2023, there is a consistent trend of lower caseloads during winter months compared to summer months, indicating seasonality in transmission dynamics.

## Temporal Trend



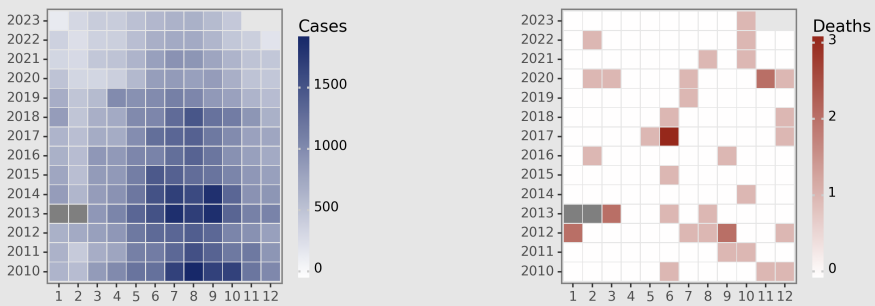

## Cases Analysis

From 2010 to 2023, mainland China saw a consistent pattern of typhoid and paratyphoid fever cases. Cases peaked during the summer months, reflecting seasonal trends associated with these diseases. There was a conspicuous decline in reported cases beginning in 2020, continuing into 2023. This could be attributed to public health measures for COVID-19, which may also impact food and waterborne illnesses. A gradual increase post-2020 suggests a return to prior transmission levels, yet numbers remain below the decade's earlier figures.

## Deaths Analysis

Throughout the 2010-2023 period, deaths associated with typhoid and paratyphoid fevers in mainland China were remarkably low, despite fluctuating case numbers. Deaths occasionally spiked (e.g., June 2017) but remained sporadic without evident seasonality or increasing trend over time. The low mortality rate could indicate effective clinical management or reporting practices; however, sporadic increases in deaths warrant epidemiological investigations to ensure maintained clinical vigilance and public health readiness.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

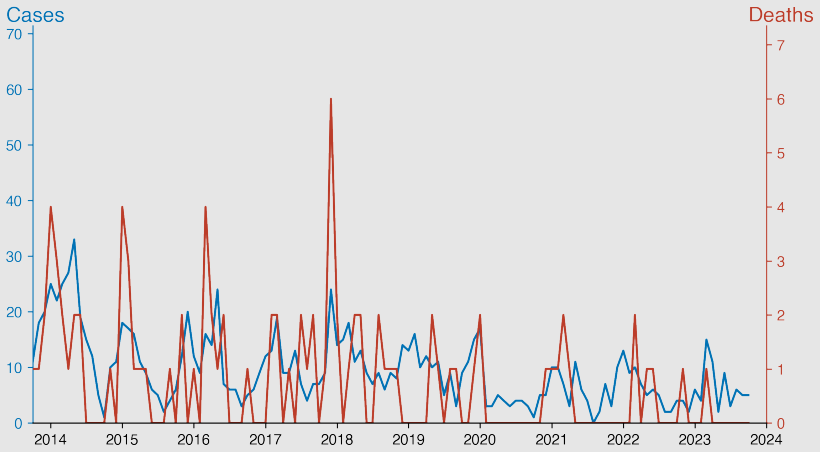
## Meningococcal meningitis

October 2023

## Introduction

Meningococcal meningitis is a serious infection of the membranes (meninges) surrounding the brain and spinal cord, caused by the bacterium Neisseria meningitidis. This bacterium can also lead to bloodstream infections (meningococcemia). It spreads through respiratory droplets or close contact. Symptoms include stiff neck, fever, headache, vomiting, and confusion. Vaccination can prevent some strains, and early treatment with antibiotics is critical for survival. Meningococcal disease can cause severe long-term complications or death if not treated promptly. It commonly affects young children, but outbreaks can occur in any age group, often in close-quarter living

## Temporal Trend




## Highlights

A significant decline in meningococcal meningitis cases and deaths has been observed over the observed period, from 2010 to October 2023.

- The data shows seasonal variability, with higher case numbers in the cooler months (January to April) and a drop during the warmer months (May to August).
- There was an unusually low number of cases and no deaths reported in October 2023, indicating effective disease control or underreporting.
- The overall case-fatality ratio has reduced over time, suggesting improvements in healthcare access, disease surveillance, and possibly vaccination campaigns.

## Cases Analysis

An evaluation of Meningococcal meningitis in mainland China from 2010 through October 2023 reveals a fluctuating yet decreasing trend in the number of reported cases. Initially, peaking during early months, with 68 cases in March 2010, cases gradually subside, reaching single digits regularly by 2021. The data indicates an overall reduction in cases over the years with sporadic increases. Notably, there is a sharp decline post-2020, concordant with the COVID-19 pandemic onset, where drastic public health measures may have inadvertently impacted the transmission of other infectious diseases.

## Deaths Analysis

Analysing mortality associated with Meningococcal meningitis from 2010 to October 2023 exhibits a declining trend in deaths, with mortality spikes in 2010 March (7 deaths) and a notable 6 deaths in December 2017. The majority of data points post-2010 indicate zero to three deaths per month. This decrease in fatalities may suggest improved clinical interventions, increased vaccination coverage, or better reporting practices. After 2020, coinciding with the COVID-19 pandemic, reported deaths are minimal, potentially influenced by enhanced infection control measures and altered healthcare-seeking behavior.

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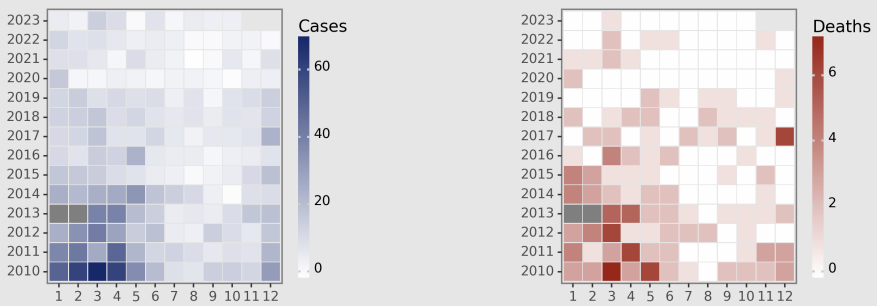


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# Chinese Notifiable Infectious Diseases Surveillance Report

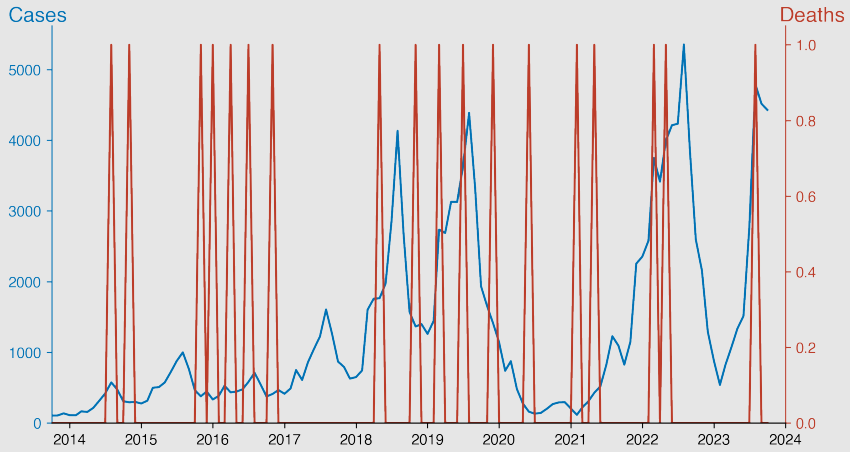
## Pertussis

October 2023

## Introduction

Pertussis, or whooping cough, is a highly contagious respiratory disease caused by the bacterium Bordetella pertussis. It is known for uncontrollable, violent coughing which often makes it hard to breathe. After fits of coughing, someone with pertussis often needs to take deep breaths which result in a "whooping" sound. Pertussis can affect individuals of any age but is most severe for babies. The best prevention measure is vaccination with the DTaP vaccine for children and Tdap booster for older children, adults, and especially pregnant women.

## Temporal Trend




## Highlights

Steady increase in pertussis cases observed since 2010, reflecting escalating transmission or improved case detection across mainland China.
- Deaths remain infrequent despite rising case numbers, indicating enhanced healthcare response or lower virulence.
- Significant surge in cases from July to October 2023 suggests possible outbreak or reporting anomaly, requiring urgent public health investigation.
- The persistence of cases despite vaccination efforts points toward gaps in herd immunity or vaccine coverage, warranting review of immunization strategies.

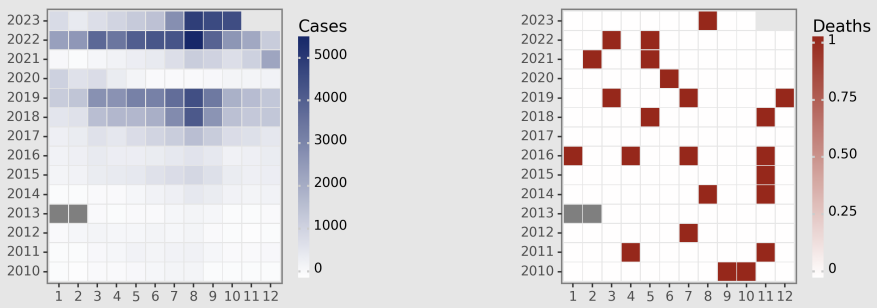
## Cases Analysis

The pertussis case data from mainland China indicates a notable increasing trend from 2010 to 2023. Beginning with relatively fewer cases (88 in January 2010), there is a rise peaking in August each year, likely due to seasonal influences. The data also divulges a substantial escalation over the years, specifically from 2017 onwards, with a significant surge in 2023, showing the highest reported cases (4793 in August). This upward trajectory might be due to various factors, including improved diagnosis, reporting practices, or diminished vaccine efficacy over time.

## Deaths Analysis

The number of deaths associated with pertussis in mainland China, as per the available data, is relatively low compared to the cases reported. From 2010 to 2023, the total deaths recorded in a month rarely exceeds one, indicating a low case-fatality rate. However, this low mortality could be attributed to effective clinical management and vaccination coverage. It's noteworthy that despite increasing cases, the number of deaths has not shown a parallel rise, suggesting that pertussis, while highly infectious, is being managed in a way that minimizes fatalities.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

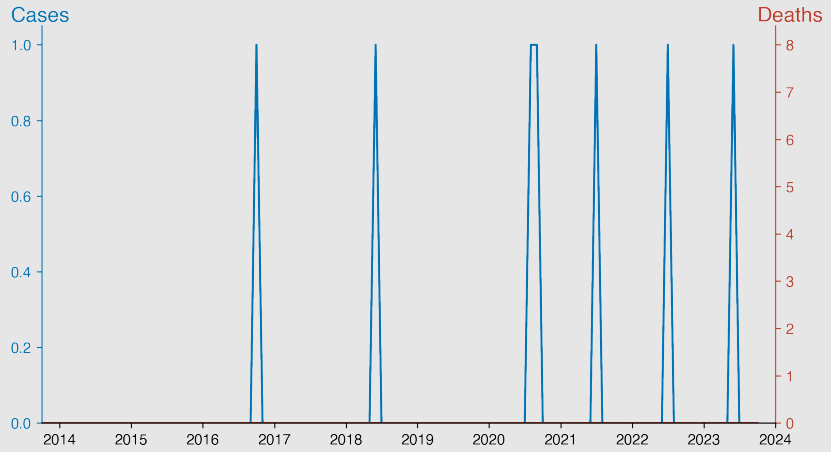
## Diphtheria

October 2023

## Introduction

Diphtheria is a serious bacterial infection caused by Corynebacterium diphtheriae. It spreads through respiratory droplets from coughing or sneezing. Symptoms include a sore throat, fever, swollen glands, and characteristic thick, gray coating on the throat or nose. If not treated, it can produce a toxin harming the heart, kidneys, and nerves. Vaccination is the best prevention. Diphtheria was once a common cause of death in children, but now it is rare in countries where vaccinations are routinely administered, though it may still be encountered in some regions with limited healthcare access.

## Temporal Trend




## Highlights

Diphtheria remains rare in mainland China, with sporadic cases rather than sustained transmission or outbreaks.
- Since 2010, only a few cases have been reported, and they are not associated with any fatalities, suggesting effective case management and disease control efforts.
- A singular case was recorded in June 2023, aligning with the pattern of isolated occurrences seen annually in the previous years.
- Despite low incidence, the persistent presence of diphtheria cases emphasizes the importance of continued vaccination and surveillance.

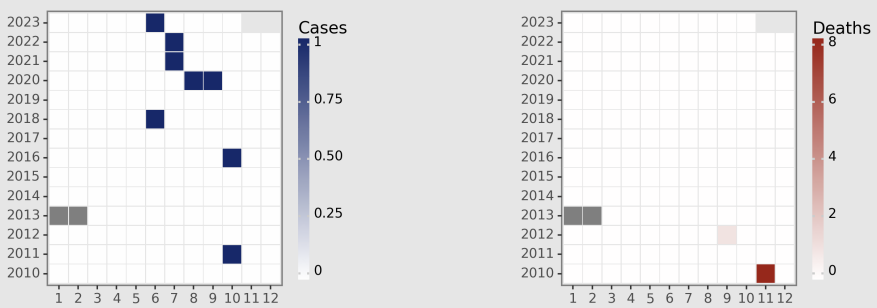
## Cases Analysis

Between January 2010 and October 2023, the reported cases of diphtheria in mainland China were minimal, with occurrences recorded in only six isolated incidents (November 2010, October 2011, June 2018, August and September 2020, July 2021, July 2022, and June 2023). Each of these instances cited only a single case, for a total of seven reported cases during this extensive period. The sporadic nature of these cases, combined with the prolonged intervals of zero incidences, suggests an effective control and prevention strategy, likely due to widespread vaccination and robust public health measures.

## Deaths Analysis

Analyzing the death data associated with diphtheria from January 2010 to October 2023 in mainland China reveals a remarkably low mortality rate. Out of the seven reported cases, only one resulted in a fatality, which occurred in September 2012. The almost nonexistent death records over these years reflect either a high level of effective clinical management for diagnosed cases or the possibility of underreporting. Nonetheless, it suggests that diphtheria is relatively well-contained in China, which could be attributed to the successful implementation of vaccination programs, particularly the DTP (diphtheria-tetanus-pertussis) vaccine.

## Distribution

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Version: 2023-12-24 (UTC+)

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# Chinese Notifiable Infectious Diseases Surveillance Report

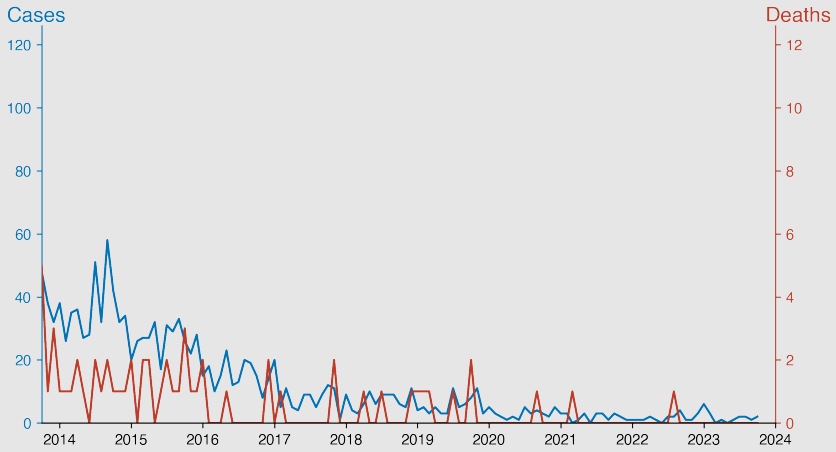
## Neonatal tetanus

October 2023

## Introduction

Neonatal tetanus is a form of bacterial infection that affects newborns, typically caused by Clostridium tetani. It generally arises when the unhealed umbilical stump, particularly in settings where aseptic techniques are not observed during and after delivery, is contaminated. Characterized by muscle stiffness and spasms, lockjaw, and difficulty swallowing, the condition can be fatal if not treated promptly. Neonatal tetanus mostly occurs in lower-income countries with limited access to immunization and healthcare services. Maternal vaccination with the tetanus toxoid is highly effective at preventing this serious disease.

## Temporal Trend




## Highlights

Significant decline in neonatal tetanus cases and deaths from 2010 to 2023, showing effective control measures.

- The highest number of reported cases (120) occurred in September and October 2010, with decreases to single digits by 2020.
- From January 2021, the reported cases remained low, typically fewer than 5 per month, and notably zero deaths since March 2021.
- As of October 2023, the situation is stable with very few cases (2) and no reported deaths, indicating sustained control of the disease.

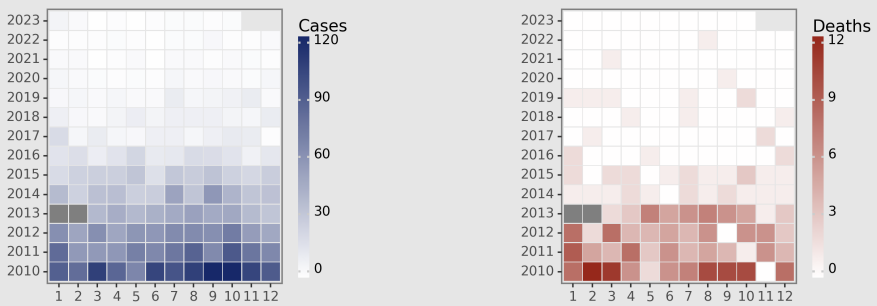
## Cases Analysis

From January 2010 to October 2023, neonatal tetanus cases in mainland China displayed a marked decrease. Initially, monthly cases averaged around 89 to 120 in 2010. The following years witnessed a general downward trend, with occasional spikes. By 2020-2023, the reported cases significantly diminished to single digits, averaging at or below six cases per month. This trend suggests the successful impact of immunization and improved maternal and neonatal healthcare practices over the years, which are crucial in preventing this bacterial disease.

## Deaths Analysis

Neonatal tetanus deaths in mainland China followed a declining pattern similar to case numbers from January 2010 to October 2023. In 2010, monthly deaths ranged from 2 to 12 cases, indicating a non-negligible fatality rate given the number of cases. The ensuing years saw a palpable reduction, with deaths often falling to zero from 2016 onwards. The data reflects the efficacy of preventative measures, likely including increased vaccination coverage for mothers and better sterile procedures during childbirth, which contributed to the near-elimination of neonatal tetanus-related fatalities.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

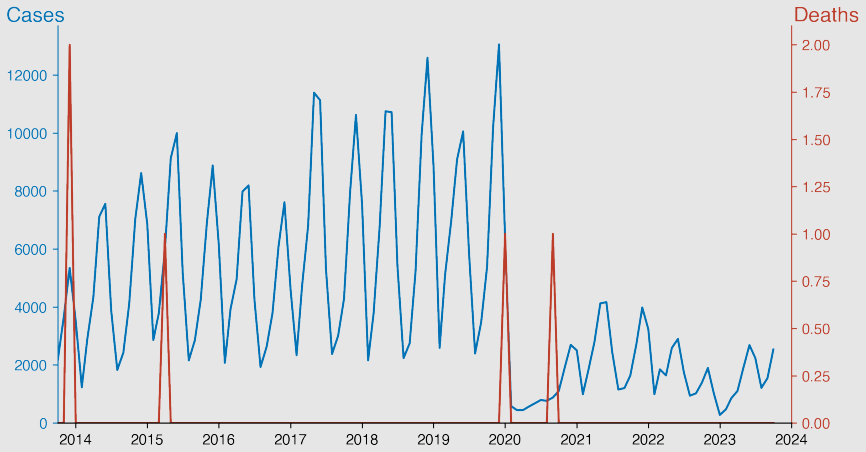
## Scarlet fever

October 2023

## Introduction

Scarlet fever is an infectious disease caused by group A Streptococcus bacteria, the same organism responsible for strep throat. Characterized by a bright red rash that feels like sandpaper, it typically affects children aged 5 to 15. Key symptoms include a high fever, sore throat, and bright red tongue (often described as "strawberry tongue"), along with the rash developing within one to two days of infection. While once considered a serious childhood illness, it's now treatable with antibiotics and has become less common and less severe with improved medical care.

## Temporal Trend




## Highlights

A notable decline is seen in the number of Scarlet fever cases in 2020, likely due to public health measures for COVID-19.
- After 2020, there is a gradual return to pre-2020 case levels, with fluctuations within the expected seasonal pattern, peaking around May to July.
- No deaths have been reported from Scarlet fever in October 2023, which suggests effective clinical management and infection control.
- The peak in 2019 before the drop in 2020 suggests a pre-pandemic escalation, after which incidence rates are stabilizing without reaching the same heights.

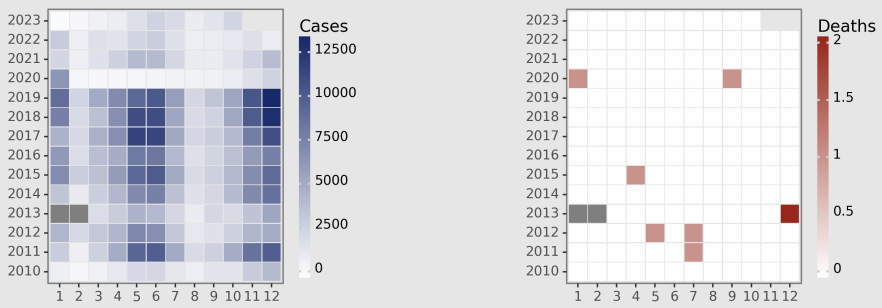
## Cases Analysis

Scarlet fever cases in mainland China exhibit a pronounced seasonality, with a recurrent upsurge from May to July, aligning with the warmer and more humid climate that may favor the transmission of Streptococcus pyogenes. A decadal trend reveals an increase from 2010 to 2019, peaking annually with over 10,000 cases by mid-decade. However, a stark decrease is observed starting 2020, coinciding with the COVID-19 pandemic onset, potentially due to public health interventions like social distancing and heightened hygiene practices. By 2023, there seems to be a gradual resurgence of cases, yet numbers have not rebounded to the pre-pandemic level.

## Deaths Analysis

Scarlet fever fatalities in mainland China are rare, with only four recorded deaths from 2010 to 2023, amidst tens of thousands of cases, indicating a low case-fatality rate. The isolated deaths in 2011, 2012, 2015, and 2020 illustrate the usual effective management and treatment of the infection with antibiotics. The lack of fatalities despite the high incidence rate may also reflect improved healthcare access, public awareness, and possibly under-reporting. Continuous monitoring is essential, particularly with the slight increase in cases post-2020.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

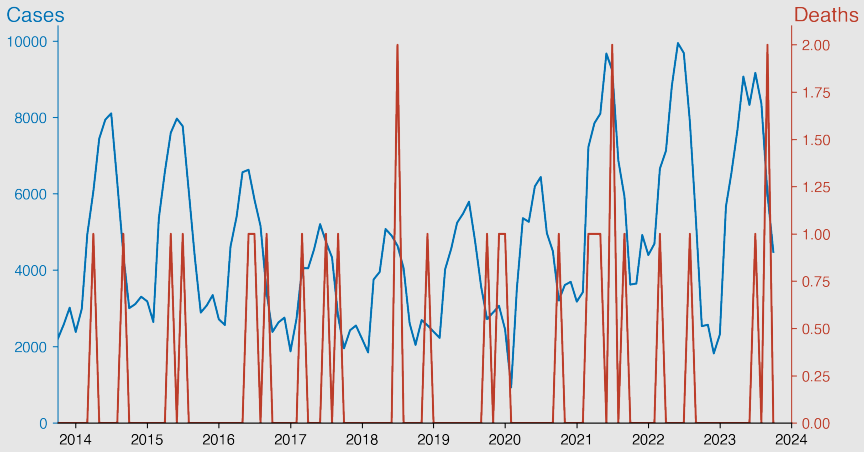
## Brucellosis

October 2023

## Introduction

Brucellosis is a zoonotic infection caused by the bacterial genus Brucella, which is transmitted from animals to humans. It commonly affects cattle, swine, goats, sheep, and dogs. Humans typically acquire the disease through direct contact with infected animals or by consuming contaminated animal products, especially unpasteurized milk and cheese. Characterized by fever, fatigue, muscle pain, and joint swelling, brucellosis can become chronic and may affect various organs. The infection is diagnosed through blood tests and is treated with prolonged courses of antibiotics.□br>

## Temporal Trend




## Highlights

Steady increase in case numbers over the years, with a notable peak in the summer months, suggesting a possible seasonal pattern.
- Mortality remains low, with occasional single death occurrences, indicating that Brucellosis, while spreading, is not generally causing high mortality.
- The spike in cases in early 2020 might be attributed to reduced reporting during the initial COVID-19 pandemic, followed by a catch-up in reporting as systems normalized.
- The highest recorded number of cases in a single month was in June 2021 (9670 cases), highlighting a significant outbreak or improved reporting mechanisms.

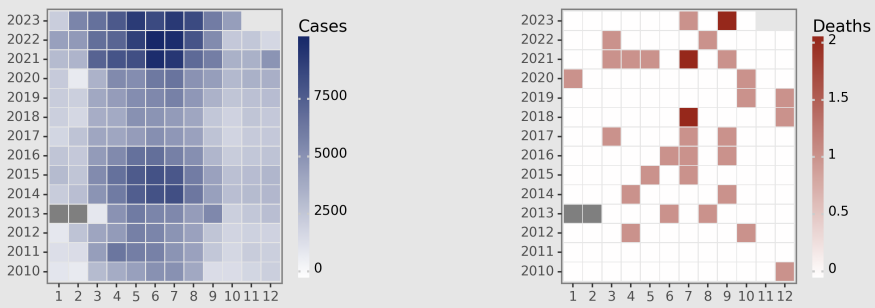
## Cases Analysis

The reported data exhibits a clear seasonal trend in Brucellosis cases in mainland China, with cases generally peaking in the summer months from May to August. Over the years, there is also an apparent increasing trend in the number of cases, peaking in 2022. The highest number of cases within a single month was reported in June 2022 (9943 cases). In contrast, the winter months, particularly from November to February, tend to have the fewest reported cases, which can be partially attributed to seasonal occupational patterns and the lifecycle of the Brucella bacteria.

## Deaths Analysis

Brucellosis maintains a notably low mortality rate, with many months reporting zero deaths despite the high number of cases. The overall death count across the data set is minimal, totaling 21 fatalities from 2010 to 2023. Occasional spikes in mortality are observed, such as in July 2023 with a single death reported and September 2023 with two deaths. The low lethality of the disease underscores the effective management and treatment options available, although increases in case numbers do call for continued surveillance and control measures.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

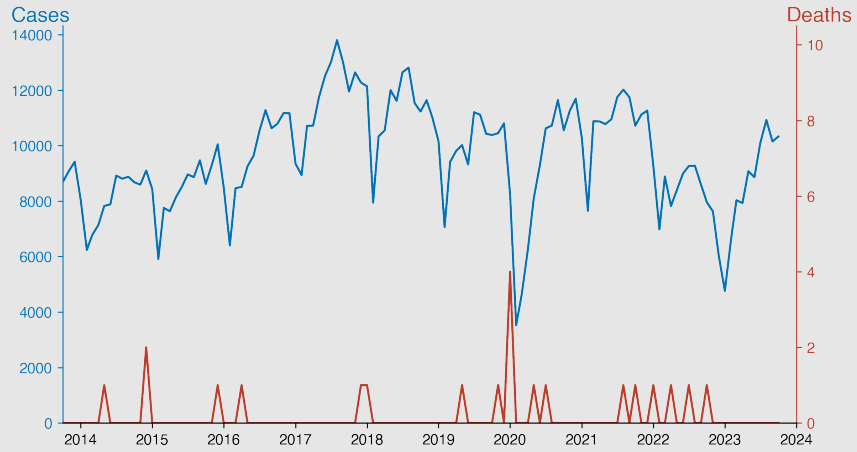
## Gonorrhea

October 2023

## Introduction

Gonorrhea is a sexually transmitted infection (STI) caused by the bacterium Neisseria gonorrhoeae. It affects both men and women, commonly involving the genital tract, rectum, and throat. Infection can result in various symptoms including painful urination and abnormal discharge, although some individuals remain asymptomatic. Untreated gonorrhea can lead to serious complications like pelvic inflammatory disease in women and infertility in both sexes. Gonorrhea is typically diagnosed via bacterial culture or nucleic acid amplification tests and is treatable with antibiotics, though antibiotic-resistant strains are a growing concern globally.

## Temporal Trend




## Highlights

Gonorrhea cases in mainland China showed substantial fluctuation with a general increasing trend from 2010 to a peak around 2017, followed by a noticeable decline after 2018.
- The highest number of cases reported in a single month was 13,803 in August 2017, while the lowest after this peak was 4,762 in January 2023, highlighting a significant reduction in case numbers.
- The data indicates sporadic instances of mortality, with the highest reported deaths (4) in January 2020, suggesting fatalities are relatively rare or underreported.
- As of October 2023, there are 10,328 reported cases of Gonorrhea with no associated deaths, suggesting continued transmission with potential under-detection or effective management of severe cases.

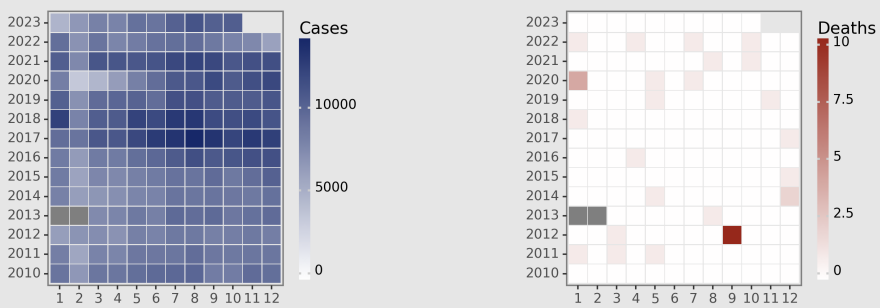
## Cases Analysis

Reported cases of gonorrhea in mainland China from January 2010 to October 2023 show substantial variability with noticeable seasonal trends. Annually, the lowest rates typically appeared during the early part of the year, with February often exhibiting the lowest case counts. A general upward trend in cases is evident across the years, peaking in 2017. A significant dip in case numbers occurs in February 2020, likely due to public health measures during the COVID-19 pandemic, but a quick rebound follows. Recent data from 2023 indicates continued transmission, maintaining high case numbers.

## Deaths Analysis

Gonorrhea is typically a non-fatal sexually transmitted infection; mortality data between January 2010 and October 2023 reflect this, with the vast majority of months reporting zero deaths. The sparse fatalities reported are isolated incidents, with no discernible trend or seasonal pattern. A notable anomaly is September 2012, with 10 reported deaths, which requires further epidemiological investigation to understand causality. Otherwise, mortality remains exceptionally low, suggesting effective treatment and management protocols for gonorrhea complications in mainland China.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

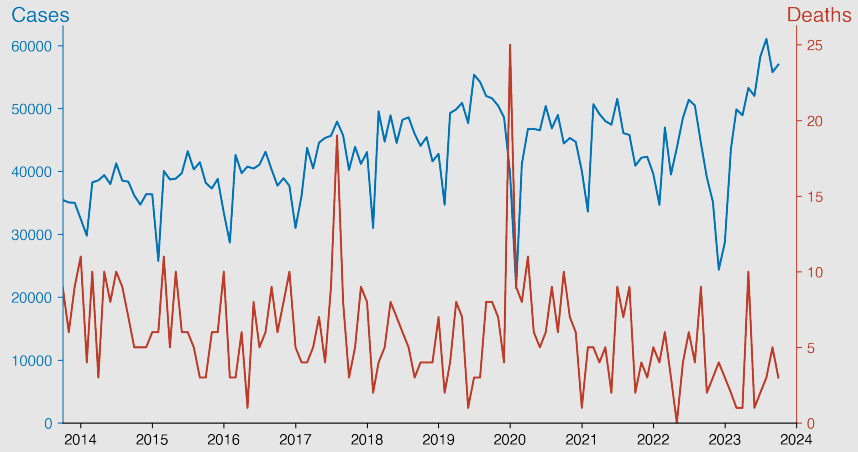
## Syphilis

October 2023

## Introduction

Syphilis is a sexually transmitted infection (STI) caused by the bacterium Treponema pallidum. It is primarily spread through sexual contact, but can also be transmitted from mother to fetus during pregnancy, leading to congenital syphilis. The disease progresses through distinct stages: primary, secondary, latent, and tertiary syphilis, each with varying symptoms. The primary stage often presents with a painless ulcer known as a chancre. If untreated, syphilis can eventually cause serious health problems affecting the heart, brain, and other organs. Diagnosis is through blood tests and direct microscopic examination, with penicillin being the standard treatment.

## Temporal Trend




## Highlights

Increasing trend in syphilis cases from 2010 to 2023, with a significant surge in the most recent recorded months.
- Despite the rise in cases, the number of deaths remains low, with no clear trend in mortality, and recent months showing minimal fatalities.
- Notable fluctuations in cases possibly related to seasonal changes or reporting practices, with some peaks and troughs observed across years.
- A sharp decrease in cases in 2020 February possibly due to reduced healthcare access or reporting during the COVID-19 pandemic, but a subsequent rebound in case numbers.

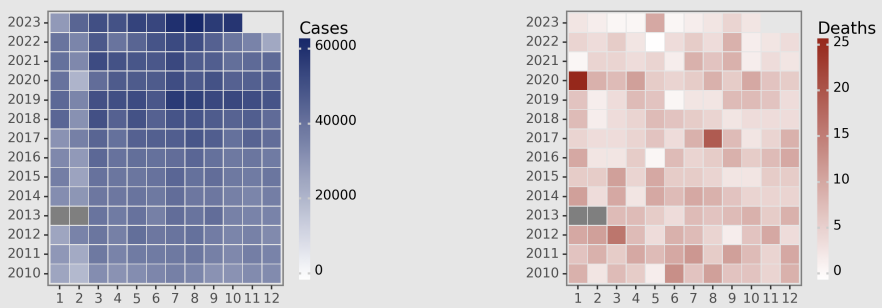
## Cases Analysis

Between January 2010 and October 2023, mainland China's reported syphilis cases demonstrate an ascending trend over the years. Initial cases hovered around 30,000 per month but increased significantly to cross the 50,000 mark in later years. Noteworthy peaks occur periodically, suggesting possible seasonal or episodic factors influencing transmission dynamics. The data implies consistent propagation of the infection and underscores the need for effective public health interventions to curb syphilis transmission.

## Deaths Analysis

Syphilis-related deaths in mainland China from January 2010 to October 2023 are relatively infrequent considering the volume of cases, with monthly deaths mostly in the single digits and occasionally reaching low double digits. The highest number of deaths recorded in a single month is 25 (January 2020), which is an anomaly in the dataset. This may suggest successful management of complications or underreporting of mortality. Despite low mortality, the persistence of cases emphasizes the need for sustained surveillance and treatment strategies.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

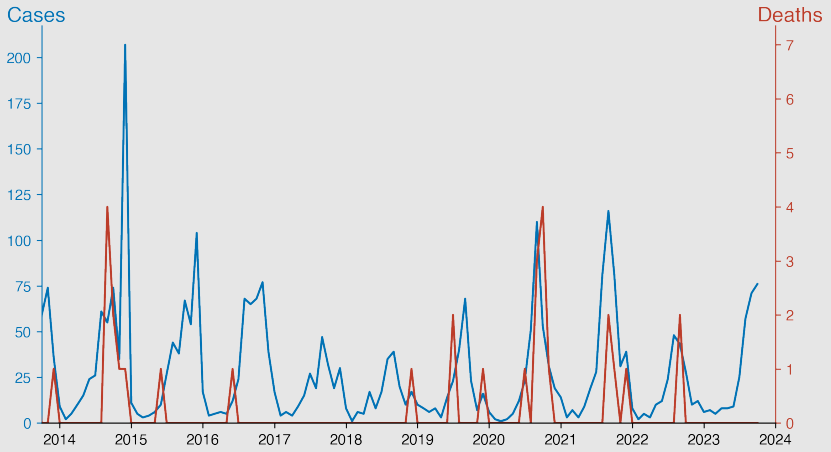
## Leptospirosis

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.

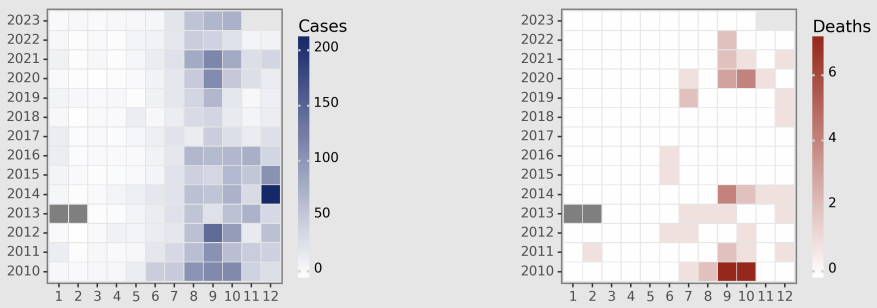
## Cases Analysis

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.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

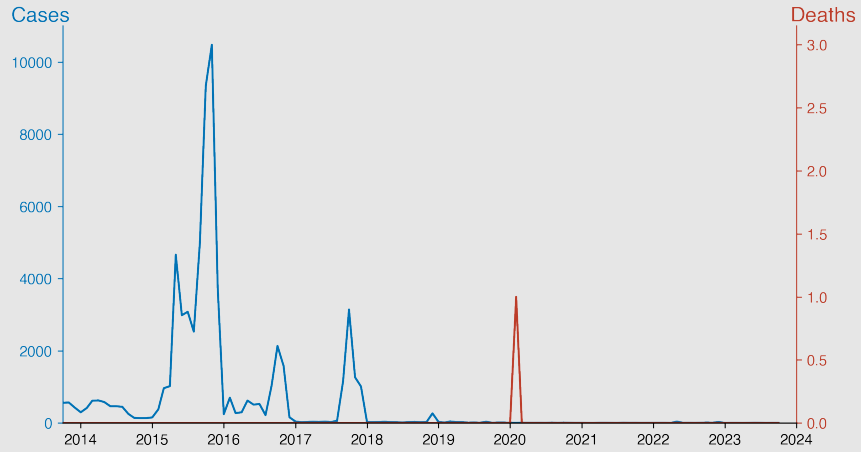
## Schistosomiasis

October 2023

## Introduction

Schistosomiasis, also known as bilharzia, is a disease caused by parasitic flatworms called schistosomes. The urinary tract or intestines may be infected by these worms. Infections occur through contact with contaminated water in which schistosome snails that carry the parasites are living. Symptoms can include abdominal pain, diarrhea, bloody stool, or blood in the urine. Those who have been infected for a long time may experience liver damage, kidney failure, infertility, or bladder cancer. Schistosomiasis is found primarily in tropical and subtropical regions, affecting millions of people worldwide.

## Temporal Trend




## Highlights

A significant peak in schistosomiasis cases occurred in 2015, with the highest monthly case count reaching 10,481 in November. This suggests a major outbreak or change in surveillance/reporting.

- After 2015, there has been a dramatic decrease in cases, with only a few spikes observed; e.g., in September and October of 2017 with over 1,000 cases each month.
- Since 2018, cases have consistently remained low, with a clear downtrend reaching single digits in a majority of the months, which could indicate successful disease control and prevention measures.
- As of October 2023, schistosomiasis cases in mainland China are extremely low, with only 2 cases and no deaths, reflecting an effective containment and possibly nearing elimination.

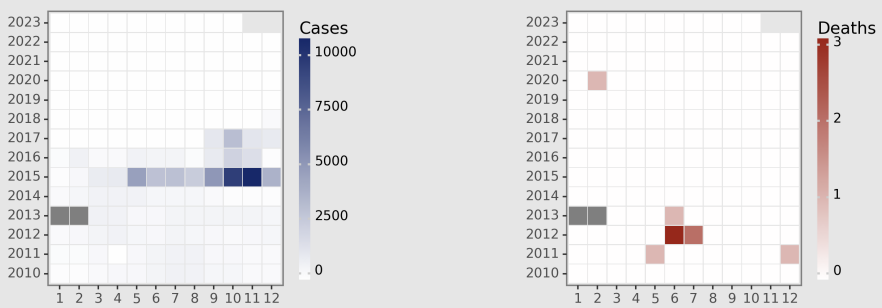
## Cases Analysis

Initial data from 2010 to mid-2011 indicates low Schistosomiasis cases in mainland China, generally under 700 cases per month with a seasonal peak in summer. However, starting in 2015, a significant surge occurred with the number of cases reaching into the thousands, peaking in November with over 10,000 cases. This unusual spike warrants an investigation into potential outbreaks or changes in reporting standards. After this peak, cases dramatically declined to double digits by 2017, remaining low thereafter. 2022 and 2023 exhibit consistent low-level transmission.

## Deaths Analysis

The fatality record associated with Schistosomiasis from 2010 to 2023 in mainland China reveals a very low death toll, with several years marking zero deaths. Notably, the years 2011, 2012, and 2013 experienced isolated fatalities despite the high number of cases in certain months, perhaps due to improved medical interventions and control measures. The single death in February 2020 amidst low case numbers is an anomaly and might be indicative of an underlying issue such as comorbidities or less timely access to healthcare. Overall, mortality is rare, suggesting effective management of the disease when it does occur.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

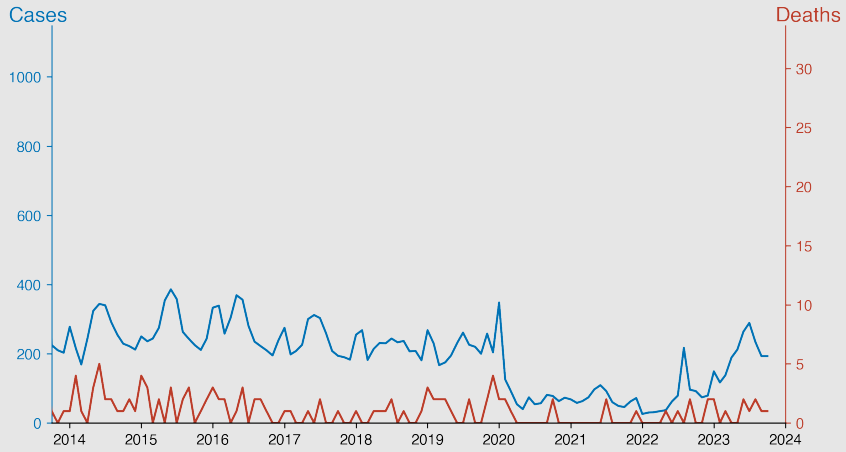
## Malaria

October 2023

## Introduction

Malaria is a life-threatening disease caused by parasites that are transmitted to people through the bites of infected female Anopheles mosquitoes. It's a preventable and treatable condition that predominantly affects the poorest regions of the world, with Sub-Saharan Africa bearing the highest burden. The disease manifests with fever, chills, and flu-like symptoms. If not treated promptly with the right antimalarial drugs, malaria can progress to severe illness and often result in death. The global fight against malaria involves vector control strategies, vaccines, antimalarial medications, and measures to prevent mosquito bites.

## Temporal Trend




## Highlights

Malaria cases have significantly decreased over the 13-year period, from high values around 790 cases in May 2010 to lower figures such as 193 cases in October 2023.
- Deaths associated with Malaria have seen an overall decline with occasional spikes, like the 32 deaths in September 2012, contrasting with 1 death in October 2023.
- A remarkable reduction in cases was seen starting from the year 2020, which coincides with the period of the COVID-19 pandemic and may reflect the impact of public health measures.
- Despite fluctuations, the general trend suggests successful control measures in place, reaching low levels of transmission, as evidenced by the consistent decline in both malaria cases and deaths.

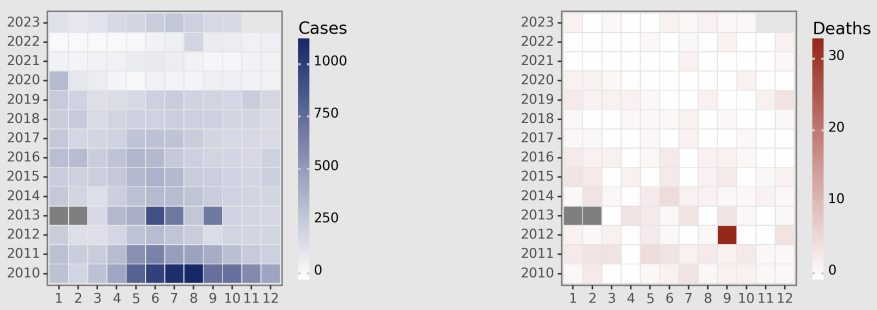
## Cases Analysis

The data for Malaria cases in mainland China from January 2010 to October 2023 indicates a declining trend over the years. Initially high in 2010, with a peak in August (1,094 cases), there has been a noticeable reduction with sporadic increases. Since 2020, reported cases significantly decreased, likely due to intensified control measures and public health interventions. A slight increase is observed in the second half of 2022, picking up again in the summer of 2023, suggesting seasonal variation and possibly reduced control efforts or emerging resistance to intervention strategies. Close monitoring and consistent control measures are crucial.

## Deaths Analysis

The death data associated with Malaria from 2010 to 2023 in mainland China demonstrates a low mortality rate overall. A peak of 32 deaths in September 2012 is an anomaly against an otherwise consistently low death tally. The years following 2012 show a vast improvement with deaths rarely exceeding three per month. This improvement could be attributable to better access to medical care, improved diagnostic practices, and effective treatment regimens. The steady low number of deaths since 2020 could also be linked to diminished transmission rates, possibly bolstered by the pandemic response protocols influencing vector control and healthcare access.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

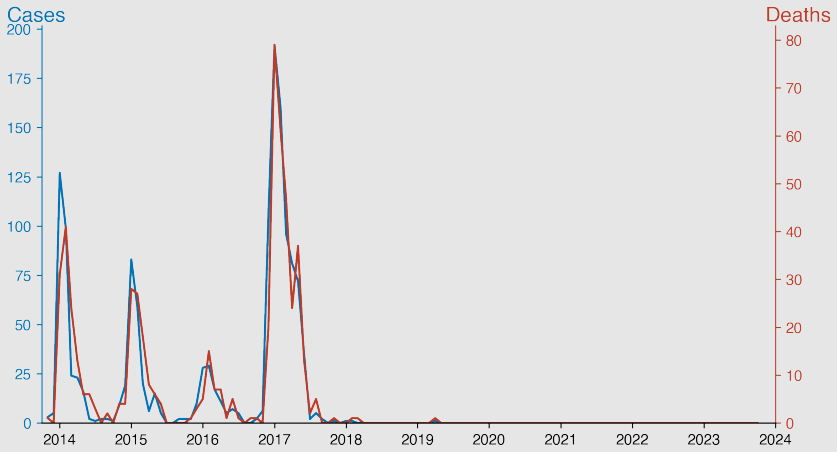
## Human infection with H7N9 virus

October 2023

## Introduction

Human infection with H7N9 virus emerged in China in 2013, concerning public health authorities due to its potential pandemic risk. This avian influenza A virus primarily affects birds, but sporadic transmission to humans has been reported, often resulting in severe respiratory illness. Infected individuals typically have exposure history to live poultry or contaminated environments. Human-to-human transmission is rare. Symptoms range from mild conjunctivitis to severe pneumonia and acute respiratory distress syndrome. Management is primarily supportive, with antiviral medications like neuraminidase inhibitors being used for treatment. Surveillance and control

## Temporal Trend




## Highlights

The H7N9 virus saw its peak in human infection cases and deaths in mainland China between January and March of 2017, with a high case-fatality rate.

- After a significant drop post-2017, no human cases or deaths have been observed since April 2023, indicating effective control or possible underreporting.
- Seasonal patterns indicate that the majority of cases occurred in the winter and early spring, consistent with other influenza viruses.
- The ongoing absence of cases may suggest successful public health interventions, such as poultry market closures and improved surveillance.

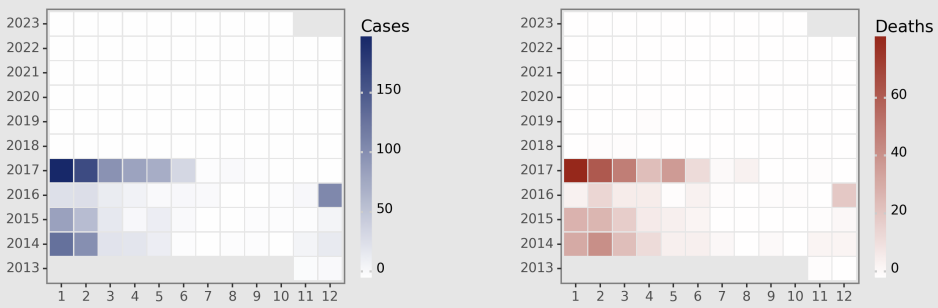
## Cases Analysis

The incidence of human H7N9 infection in mainland China features a marked seasonality with significant peaks during winter months, especially from January to April, coinciding with increased human-animal interaction and colder weather conducive to the virus's survival. Cases surged notably in early 2014, with January and February 2017 experiencing the highest recorded incidences, followed by sharp declines. Since mid-2017, reported cases have nearly ceased, which could be attributed to enhanced surveillance, improved disease control measures in poultry populations, and greater public awareness of the risks associated with live animal markets.

## Deaths Analysis

The mortality associated with the H7N9 virus followed a similar seasonal pattern as observed with the cases. The fatality rate was alarmingly high during the early years, peaking conspicuously in February 2017. Subsequently, the number of reported deaths dropped to zero and remained so from mid-2017 onwards. This drastic improvement could reflect advancements in medical management, early detection of cases, and effective response strategies. The absence of data on severe and mild cases precludes precise calculation of the case-fatality rate; however, the high number of deaths in the context of the total cases suggests a severe disease progression in confirmed cases.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

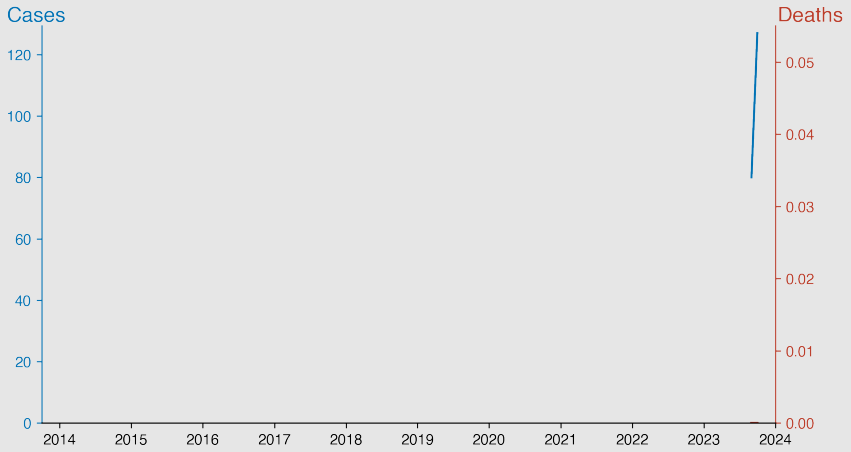
## Monkey pox

October 2023

## Introduction

Monkeypox is a zoonotic disease caused by the Monkeypox virus, part of the Poxviridae family and related to the now-eradicated smallpox virus. It is typically transmitted to humans from animals, with rodents being the most common source. The virus can spread through direct contact with the blood, bodily fluids, or skin lesions of an infected animal or human, or through respiratory droplets during prolonged face-to-face interaction. Common symptoms include fever, headache, muscle aches, swollen lymph nodes, and a distinctive rash resembling that of smallpox. Monkeypox generally has a milder clinical course than smallpox.

## Temporal Trend




## Highlights

A noticeable increase in monkeypox cases in mainland China from September to October 2023, with reported cases rising from 80 to 127, indicating a growing transmission within the population.

- Despite the rise in cases, the reported death toll has remained at zero, suggesting that while the infection is spreading, it may be managed effectively, and the health system is currently able to cope with the severity of the infections.
- The trend from September to October shows a 58.75% increase in cases, which could imply that the virus is becoming more transmissible or that awareness and testing have improved, leading to more cases being identified and reported.
- The absence of mortality might indicate either the presence of a less virulent strain, good access to medical care, or a successful public health response including vaccination, if available, and other

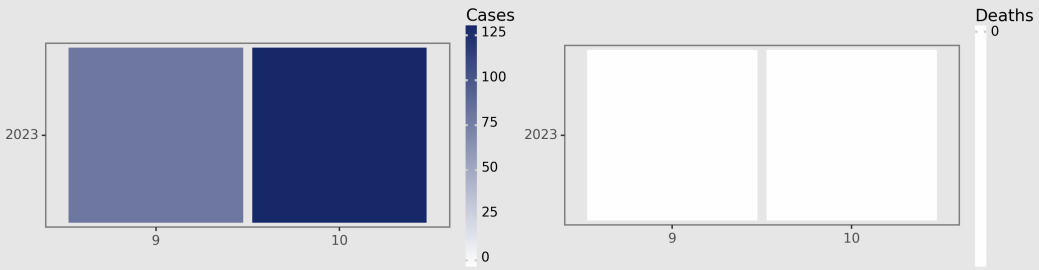
## Cases Analysis

From September to October 2023, mainland China reported a 58.75% increase in monkeypox cases, from 80 to 127 cases respectively. This suggests an escalating transmission rate, which may be attributed to several factors such as increased human-to-human transmission, enhanced surveillance and reporting, or the arrival of new cases from international travel. The uptick indicates potential communal spread, highlighting the need for prompt public health interventions to contain the virus and prevent sustained chains of transmission.

## Deaths Analysis

Despite the rise in reported monkeypox cases during September and October 2023 in mainland China, there have been no recorded deaths. This demonstrates that while the infection is spreading, it has not resulted in fatalities within these months. The absence of mortality could reflect the virus's typically low death rate, effective health care response, or a strain of the virus with lower lethality. Ongoing medical support and monitoring are required to manage complications and minimize the risk of potential future fatalities.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

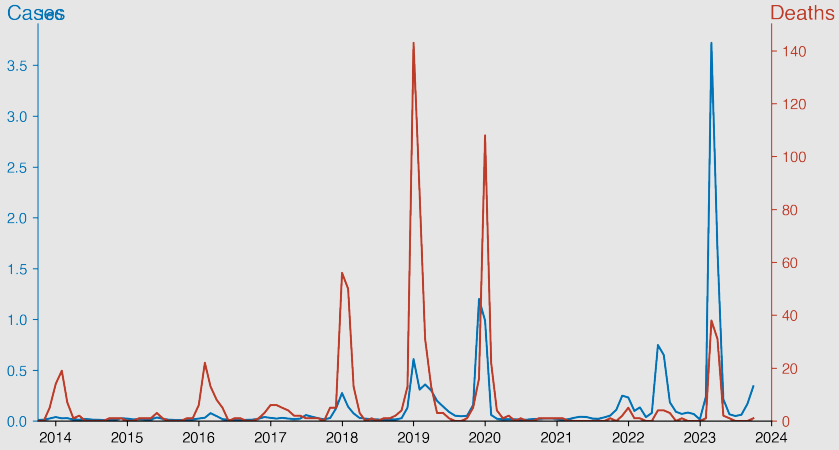
## Influenza

October 2023

## Introduction

Influenza, commonly known as the flu, is a highly contagious respiratory infection caused by influenza viruses. It can lead to mild to severe illness, and at times can result in hospitalization or death. Seasonal flu epidemics occur yearly, typically in colder months, affecting various age groups, but particularly severe among the elderly, young children, and those with underlying health conditions. Influenza viruses are categorized into types A, B, C, and D, with A and B causing seasonal outbreaks. Flu symptoms include fever, cough, sore throat, muscle aches, and fatigue. Vaccination is the primary prevention strategy against influenza.

## Temporal Trend




## Highlights

A staggering increase of influenza cases was observed in March 2023 reaching 3,721,370 cases with 38 deaths, indicating a substantial outbreak or enhanced surveillance/reporting.

- Despite a reduction in cases to 167,7011 by April 2023 and further to 340,969 by October 2023, the figures are significantly higher than in previous years, suggesting a continued elevated transmission rate.
- The fatality rate in the context of cases is relatively low, with October 2023 reporting a single death; however, the increase in cases requires ongoing public health attention.
- Seasonal trends show a pronounced peak in cases during the winter months, yet the outbreak in the spring/summer of 2023 is an anomaly calling for investigation into viral strains and contributing factors.

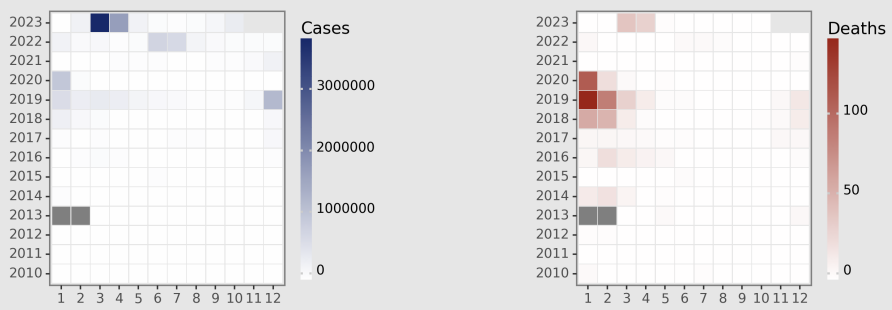
## Cases Analysis

From 2010 to 2023, Influenza cases in mainland China show a pattern of fluctuation with peaks typically occurring in the winter months, indicative of seasonal outbreaks. Notable spikes are observed in December through February, consistent with enhanced transmission in colder weather when people are more likely to stay indoors. There is a marked increase in cases starting from 2018, with the largest spikes in early 2019 and again in early 2023. This suggests changes in either the virus' prevalence or improvements in surveillance and reporting. The sharp rise in March 2023 to over 3.7 million cases may indicate an emerging pandemic or a significant change in data collection/reporting practices.

## Deaths Analysis

Deaths due to Influenza in mainland China have remained relatively low compared to the number of cases, with the case-fatality rate fluctuating over the years. Mortality peaks do not always align with the highest case numbers, implying variable lethality or possible improvements in clinical treatment over time. The highest mortality reported was in January 2019, with 143 deaths, which coincides with the peak influenza season. Notably, there is a high number of deaths in early 2023, which, along with the surge in cases, raises concern for a possibly more virulent strain of the virus or overstretched healthcare services leading to increased fatalities.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

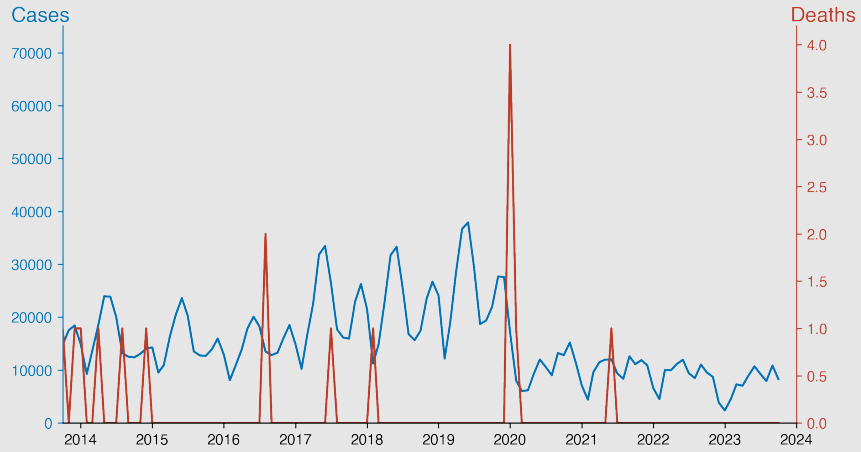
## Mumps

October 2023

## Introduction

Mumps is a highly contagious viral infection characterized by the painful swelling of the salivary glands, typically the parotid glands located near the ears. The swelling can cause pain, tenderness, and difficulty with swallowing. Additional symptoms may include fever, headache, muscle aches, fatigue, and loss of appetite. Mumps spreads through saliva or respiratory droplets from an infected person. It's primarily known for affecting children, but can occur at any age. Vaccination, specifically the MMR (measles, mumps, and rubella) vaccine, is the best prevention against mumps.

## Temporal Trend




## Highlights

A significant decline in mumps cases in mainland China is observed from the peak years of 2010-2012 to October 2023.

- Despite fluctuations, there is an overall downward trend in mumps cases from tens of thousands per month during 2010-2012 to fewer than 10,000 cases per month in 2023.
- Mumps-related mortality is minimal and sporadic throughout the years with zero deaths reported most months since 2020.
- The current disease situation as of October 2023, with 8,287 cases and no deaths, suggests that mumps is under control in mainland China.

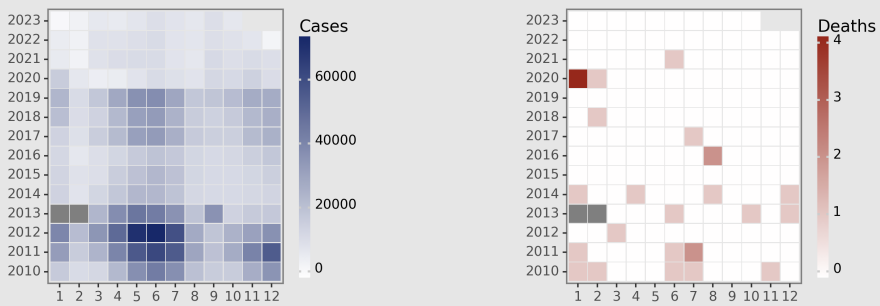
## Cases Analysis

From January 2010 to October 2023, mainland China reported a fluctuating pattern in mumps cases with seasonal peaks typically occurring between April and July each year. Despite seasonal fluctuations, there was a notable decrease in reported cases beginning in 2020, which persisted into the following years. This trend may be attributed to various factors, including public health interventions and changes in surveillance or reporting. Notably, the sharpest decline is observed in 2020, which coincides with the onset of the COVID-19 pandemic and possibly reflects the impact of non-pharmaceutical interventions such as masks and social distancing.

## Deaths Analysis

Over the same period, reported mumps-related deaths were extremely low compared to the number of cases, highlighting the non-lethal nature of the disease when managed properly. Occasional fatalities did occur, with a total of 16 deaths recorded from 2010 to 2023—a minute fraction of the total case count. The highest number of deaths in a single month was four, which occurred in January 2020. This anomaly underscores the necessity for continued vigilance in mumps management, even though the disease is generally not associated with high mortality rates.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

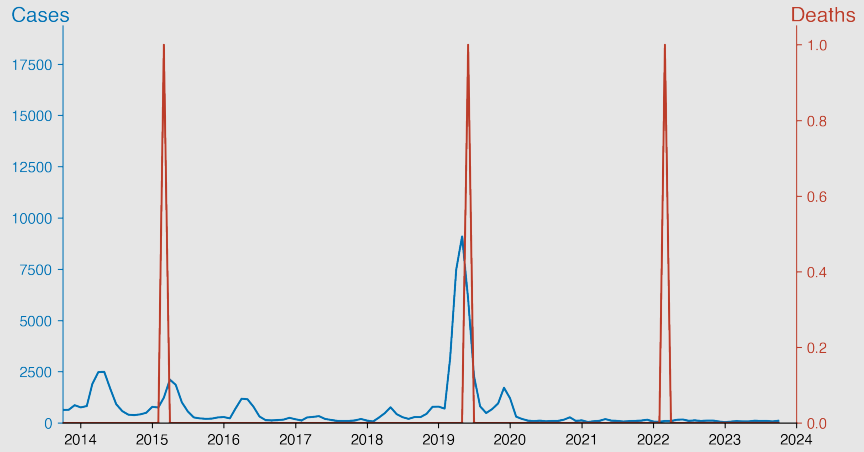
## Rubella

October 2023

## Introduction

Rubella, also known as German measles or three-day measles, is a contagious viral disease characterized by low-grade fever, sore throat, and a rash that starts on the face and spreads to the rest of the body. It is caused by the rubella virus, primarily transmitted via airborne droplets when infected people sneeze or cough. While generally mild in children and adults, rubella infection during early pregnancy can lead to serious congenital rubella syndrome (CRS) in the fetus, resulting in a range of birth defects. Vaccination is effective for prevention.

## Temporal Trend




## Highlights

A declining trend in rubella cases observed, with a peak in 2010 and 2011, followed by a significant decrease to fewer than 200 cases per month since 2017.
- Sporadic outbreaks with higher numbers of cases occurred in certain months and years (e.g., April 2019 with 7471 cases), suggesting that rubella is not entirely controlled in the population.
- Overall low mortality, with very few deaths reported over the years, indicating that while transmission occurred, it was not commonly associated with high fatality.
- The data for 2023 show consistently low case numbers, with cases remaining below 120 per month, suggesting ongoing but low-level transmission of rubella in mainland China.

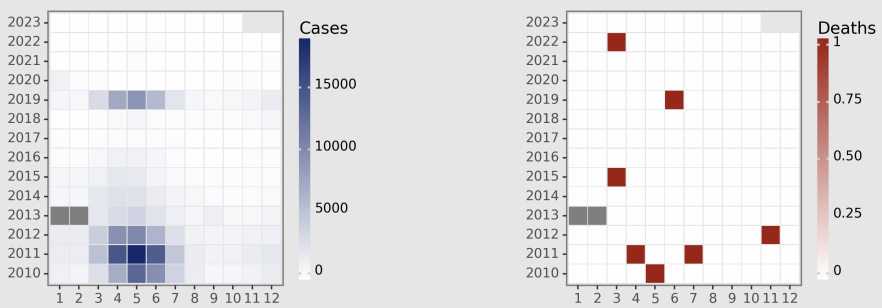
## Cases Analysis

Rubella cases in mainland China peeked significantly in May 2010, April 2011, and May 2011 but have not reached those figures since. There appears to be a seasonal trend with higher cases in the spring months, particularly from March to May. Post-2011, there has been a notable decline in the number of cases, with a substantial drop observed from 2019 to 2023. No data was reported for January and February 2013, potentially indicating missing values or reporting issues. The decline beginning in 2020 might be associated with public health measures for COVID-19 that also mitigated rubella transmission.

## Deaths Analysis

The data shows a very low mortality rate associated with rubella, with only three recorded deaths over the 13-year period. The first death occurred in May 2010, followed by a single death in April 2011 and another in July 2011. Then a death in March 2015, June 2019, and March 2022. This infrequency suggests that rubella, while highly infectious, is not typically a deadly disease in the reported population, and/or that there may be under-reporting of mortality or effective management and treatment that prevent death in rubella cases on the mainland of China.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

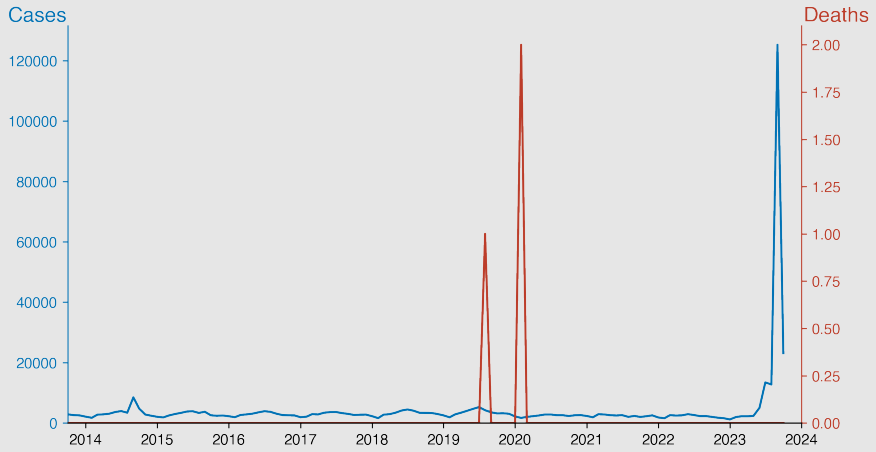
## Acute hemorrhagic conjunctivitis

October 2023

## Introduction

Acute hemorrhagic conjunctivitis (AHC) is a highly contagious, viral infection of the conjunctiva characterized by sudden onset of painful, swollen, red eyes, with subconjunctival hemorrhages, and excessive tearing. The condition may also involve blurry vision, sensitivity to light, and the sensation of a foreign body in the eye. Enterovirus 70 and coxsackievirus A24 variant are the primary causative agents. It can affect individuals of all ages and spreads rapidly through direct contact with ocular secretions or contaminated surfaces. Outbreaks are more common in tropical and subtropical regions. There is no specific treatment; management focuses on symptomatic relief.

## Temporal Trend




## Highlights

A dramatic spike in acute hemorrhagic conjunctivitis cases occurred in September 2023, with 125,264 reported cases, representing a stark increase from previous months and the highest monthly case count in the dataset.

- Despite the significant rise in cases, there have been no reported deaths associated with the disease in October 2023, continuing a trend of low mortality throughout the observed period.
- The cases in October 2023 show a decrease to 23,111, suggesting that the peak of the outbreak may have passed or that control measures are taking effect.
- Historical data indicate that the disease exhibits seasonality with peaks during the summer months, but the surge in 2023 surpasses seasonal trends and warrants investigations into potential new viral strains or changes in transmission patterns.

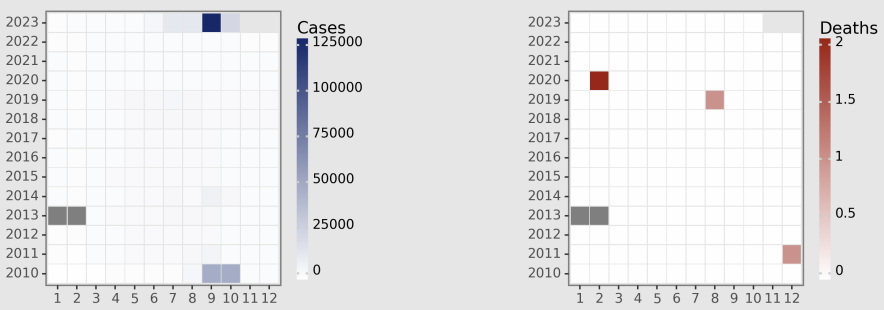
## Cases Analysis

Between January 2010 and October 2023, mainland China reported an increasing trend in acute hemorrhagic conjunctivitis cases with seasonal peaks, particularly during late summer and early autumn. The most notable surge occurred in September 2023, with a record 125,264 cases, indicating a significant outbreak. The data shows sporadic fluctuations, but the overall trajectory suggests heightened transmission during warmer months. Prior to the 2023 escalation, there were occasional spikes, including significant increases in September of 2010 and 2014.

## Deaths Analysis

Throughout the thirteen-year span, deaths remained exceptionally rare, with only three fatalities reported among tens of thousands of cases, emphasizing the typically non-lethal nature of acute hemorrhagic conjunctivitis. The mortalities were recorded in December 2011, August 2019, and February 2020. Despite the substantial outbreak in case numbers observed in 2023, no deaths were reported. This pattern reflects the disease's relatively low mortality risk despite its capacity for rapid and extensive spread within a population.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

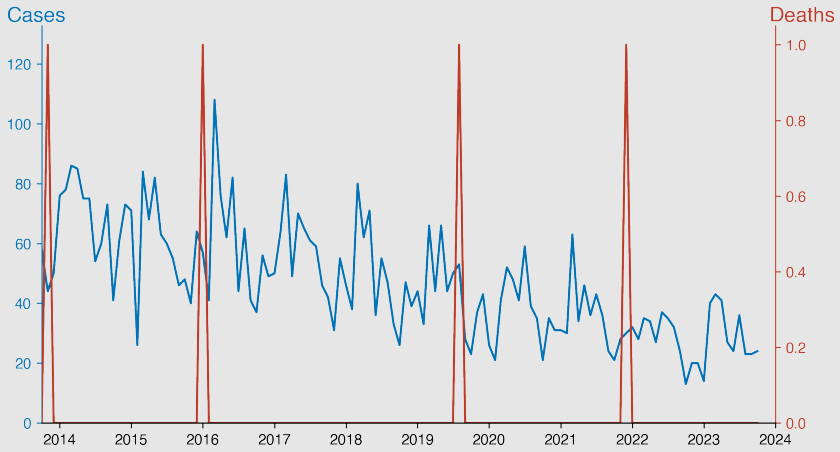
## Leprosy

October 2023

## Introduction

Leprosy, also known as Hansen's disease, is a chronic infectious disease caused by the bacterium Mycobacterium leprae. It primarily affects the skin, peripheral nerves, mucosa of the upper respiratory tract, and eyes. Leprosy is known for its potential to cause progressive and permanent damage to the skin, nerves, limbs, and eyes if untreated. Transmission is thought to occur through respiratory droplets from those with untreated, severe forms of the disease. It has a long incubation period, typically 5 years, and is treatable with a combination of antibiotics known as multidrug therapy.

## Temporal Trend




## Highlights

A notable declining trend in the number of Leprosy cases in mainland China from January 2010 (72 cases) to October 2023 (24 cases), indicating a positive epidemiological control over the years.

- Deaths due to Leprosy have remained extremely low throughout the observation period, with several months reporting zero deaths, underscoring a possibly effective case management and treatment protocols.
- Spikes are observed intermittently (e.g., March 2012 with 127 cases), suggesting potential seasonal patterns or localized outbreaks that warrant further investigation for targeted interventions.
- Recent years from 2019 to 2023 have consistently seen lower case numbers, with no month exceeding 66 cases, indicating sustained efforts in disease reduction and ongoing suppression of transmission within the population.

## Cases Analysis

From January 2010 to October 2023, mainland China reported a total of 4,218 cases of leprosy with some fluctuations. The highest number of cases reported in a single month was 127 in March 2012. The data suggests a mild seasonal pattern with higher cases often in the spring and summer months. Over the observed period, there is a general decline in the number of reported cases per year, indicating the progress in disease control and public health interventions aimed at reducing leprosy incidence.

## Deaths Analysis

Throughout the same period, leprosy resulted in a total of 10 reported deaths, indicating a relatively low mortality rate compared to the total number of cases. Deaths were sporadic with no apparent pattern over the months and years. The low number of deaths can be attributed to effective treatment options, early diagnosis, and improved healthcare systems. The data does not show an increase in lethality, reinforcing leprosy's status as a manageable infectious disease when adequately addressed.

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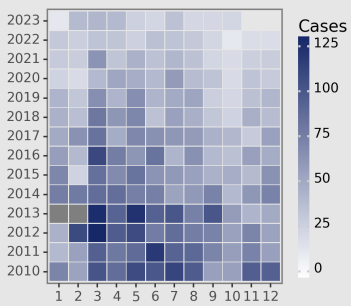


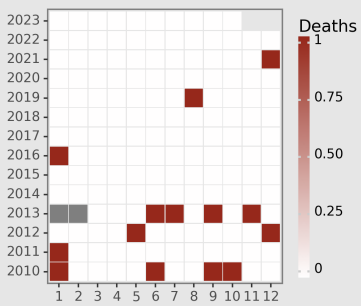


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# Chinese Notifiable Infectious Diseases Surveillance Report

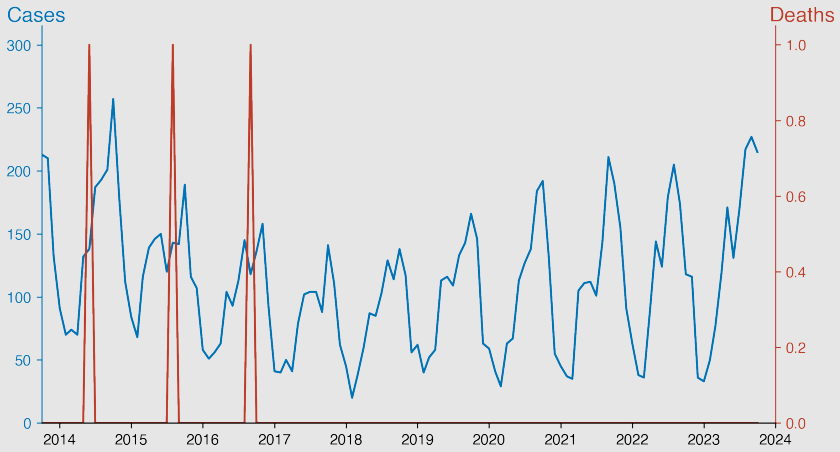
## Typhus

October 2023

## Introduction

Typhus is a group of infectious diseases caused by Rickettsia bacteria, transmitted by lice, fleas, mites, or ticks. The most common types are epidemic typhus, endemic (murine) typhus, and scrub typhus. Symptoms include high fever, headache, rash, and muscle pain. Typhus is usually treated successfully with antibiotics. Historically, typhus caused devastating epidemics, particularly during wars and in crowded conditions with poor hygiene. Prevention relies on reducing contact with the vectors through good public health practices and vector control. Vaccines are not widely available.

## Temporal Trend




## Highlights

Seasonal fluctuations in typhus cases in mainland China, with peaks during the warmer months (May through August) and troughs during the cooler months (December through February).
- Minimal mortality associated with reported typhus cases suggests either mild disease presentation and/or effective clinical management.
- A slight increasing trend in the number of cases from 2020-2023, possibly indicating changes in vector populations, human-vector contact, or diagnostic awareness.
- The data indicates a potential need for reinforced public health measures during the summer months to prevent or control outbreaks.

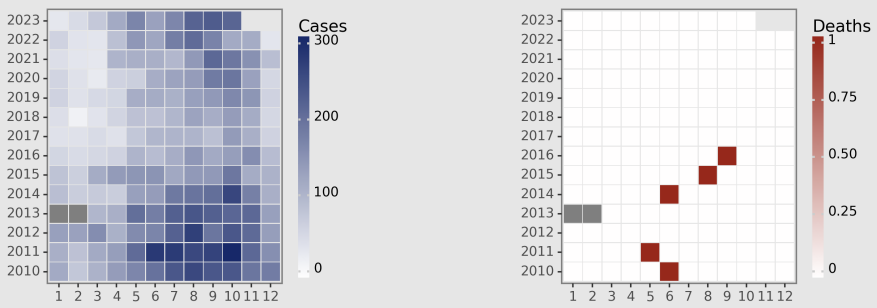
## Cases Analysis

Over the reviewed period from January 2010 to October 2023, typhus cases in mainland China displayed a cyclical pattern with fluctuations across years. Notably, a peak is observed during the warmer months, typically between June and September, which is reflective of increased vector activity during these periods. Overall, case counts range from as low as 20 to upwards of 300 per month. There has been no clear trend indicating a sustained increase or decrease over the years. Variances could be attributed to environmental factors, public health interventions, and reporting practices.

## Deaths Analysis

The mortality associated with typhus cases in mainland China from January 2010 to October 2023 is remarkably low, given the total number of cases. There were only four recorded deaths within this timespan, with isolated incidents occurring in June 2010, May 2011, August 2015, and September 2016. The death rate calculation from this data results in a significantly low case-fatality ratio. This low mortality could suggest either effective treatment and management of cases or possibly underreporting of deaths related to typhus.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

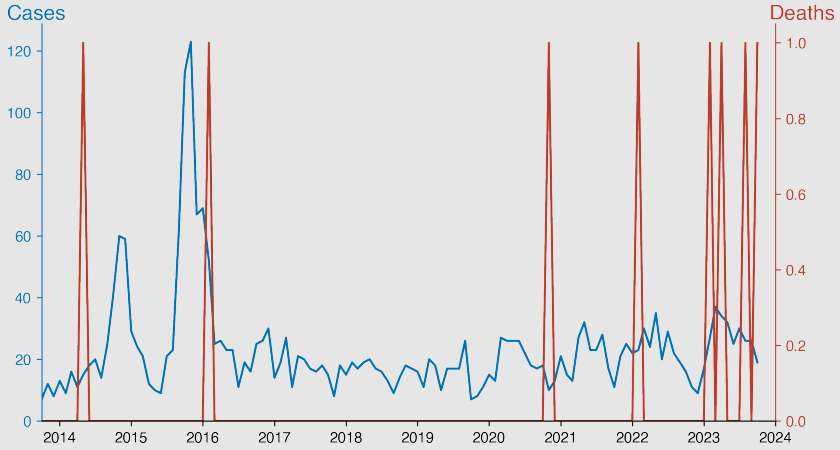
## Kala azar

October 2023

## Introduction

Kala-azar, also known as visceral leishmaniasis, is a life-threatening disease caused by protozoan parasites of the Leishmania genus. It is transmitted through the bites of infected female phlebotomine sandflies. The disease primarily affects the spleen, liver, and bone marrow, leading to fever, weight loss, anemia, and enlargement of the spleen and liver. If untreated, it has a high fatality rate. Kala-azar is endemic in regions of Asia, East Africa, South America, and the Mediterranean basin. Treatment includes antimonial compounds, amphotericin B, miltefosine, and other antiparasitic drugs.

## Temporal Trend




## Highlights

A gradual decline in Kala azar cases from 2010 to 2023, with intermittent peaks suggesting episodic outbreaks.
- Low mortality overall, with occasional deaths suggesting the potential for fatal outcomes, highlighting the need for continued surveillance and healthcare response.
- A notable increase in cases from July to October 2023, with 30 cases in July, a slight decrease to 26 in August and September, and 19 in October, indicating a recent spike that warrants investigation.
- The persistent presence of Kala azar cases in mainland China over the 2010-2023 period underlines the endemic nature of the disease, with implications for both public health planning and long-term prevention strategies.

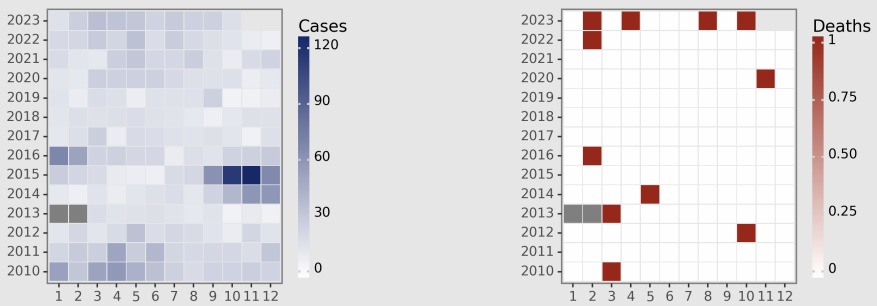
## Cases Analysis

From January 2010 to October 2023, mainland China reported 3,792 cases of Kala azar with fluctuations over the years. Cases peaked at 123 in November 2015 before generally trending downward. Notably, seasonal patterns emerge, with higher incidences typically in the latter half of the year, potentially associated with vector population cycles. The data for January and February 2013 is missing, which could affect interpretability. Despite some year-to-year variation, there is an overall decline in cases, particularly notable after 2015 with sporadic upsurges.

## Deaths Analysis

Over the same period, there were 10 reported deaths among the Kala azar cases in mainland China. The fatality rate remained low, with deaths occurring sporadically rather than annually (years 2010, 2012, 2013, 2014, 2015, 2016, 2020, 2022, 2023). As such, no discernible pattern or trend in deaths is evident, and the fatality rate is too low to extrapolate seasonality or other demographic factors definitively influencing mortality. The data reflects successful case management and possibly effective control measures leading to low mortality despite the presence of the disease.
(Note: The analysis does not include a full assessment of the impact of potential under-reporting, misdiagnosis, or th

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

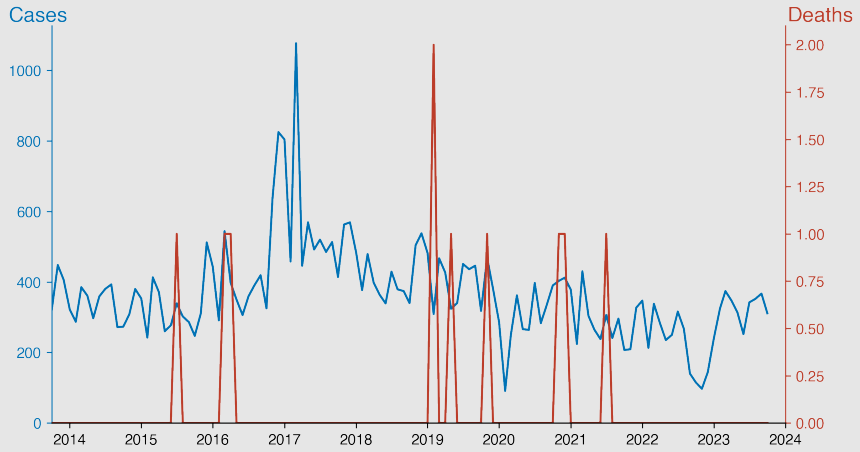
## Echinococcosis

October 2023

## Introduction

Echinococcosis, also known as hydatid disease, is a parasitic disease caused by the larvae of tapeworms belonging to the genus Echinococcus. The two most important forms of the disease in humans are cystic echinococcosis (CE), caused by Echinococcus granulosus, and alveolar echinococcosis (AE), caused by Echinococcus multilocularis. Humans become accidental intermediate hosts through the ingestion of eggs from contaminated food, water, or soil, or through direct contact with definitive hosts such as dogs and other canids. The disease results in the formation of cysts mainly in the liver and lungs, and can be life-threatening if left untreated.

## Temporal Trend




## Highlights

Seasonal fluctuations in echinococcosis cases are apparent, with a trend toward higher incidence rates during the warmer months (May through September), suggesting possible seasonal factors in transmission dynamics.

- Despite fluctuations, there is no clear long-term trend in the total number of cases; however, a peak is observed in December 2010 with 1065 cases. Few sporadic peaks occur in subsequent years.
- Mortality rates for echinococcosis remain very low throughout the observed period, with a total of 10 deaths reported from 2010 through October 2023, indicating potentially effective clinical management of the disease.
- Notably, there is a drop in the number of cases reported during February 2020, which may correspond with the outbreak of COVID-19 and subsequent public health measures affecting diagnosis

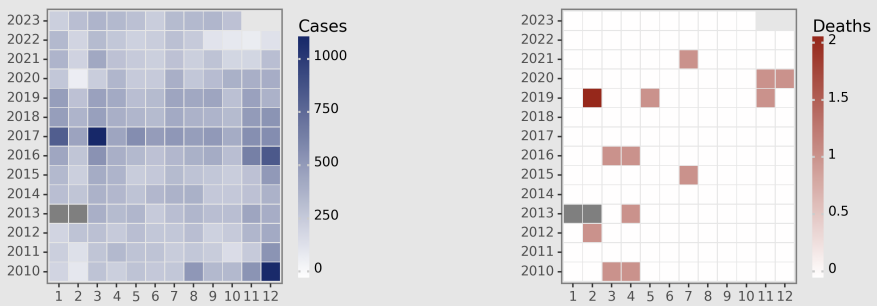
## Cases Analysis

Between January 2010 and October 2023, Echinococcosis cases in mainland China exhibited seasonality, peaking mostly towards the year's end. The highest recorded cases occurred in March 2017, with 1,077 incidents. Overall, there were fluctuations with periods of increase and decrease in case numbers, potentially influenced by environmental factors, diagnostic improvements, reporting changes, or control measures. Monthly case numbers ranged from 91 to 1,077, demonstrating considerable variability. Data for January and February 2013 are missing, which represents a gap in this dataset.

## Deaths Analysis

The Echinococcosis fatality dataset from January 2010 to October 2023 shows very low mortality, with deaths reaching a count of only two in February 2019, the highest registered in this period. There are a total of 10 reported deaths, indicating a low case-fatality rate given the total number of cases. This may reflect effective clinical management or the non-lethal nature of the condition when appropriately treated. However, under-reporting cannot be dismissed without more context. Additionally, year-on-year death counts remain sporadic, making it difficult to discern any clear temporal trends.

## Distribution

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# Chinese Notifiable Infectious Diseases Surveillance Report

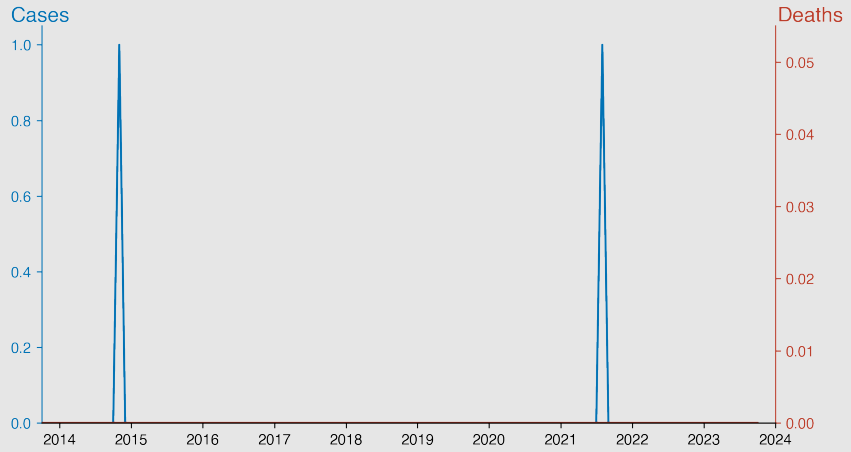
## Filariasis

October 2023

## Introduction

Filariasis is a group of tropical parasitic diseases caused by infection with filarial worms, transmitted to humans through the bites of infected mosquitos. There are three primary types: lymphatic filariasis, subcutaneous filariasis, and serous cavity filariasis. These worms occupy the lymphatic system, subcutaneous tissue, or body cavities, respectively. Infection can lead to various conditions, including lymphedema, elephantiasis, and onchocerciasis (river blindness). The disease is prevalent in tropical and subtropical regions of Africa, Asia, and the Americas. Global eradication efforts have centered around mass drug administration and vector control strategies.

## Temporal Trend




## Highlights

Filariasis in mainland China from January 2010 to October 2023 demonstrates a remarkably low incidence, with only three recorded cases occurring in the months of August 2011, November 2014, and August 2021.

- There have been no reported deaths associated with Filariasis during this period, indicating either a low mortality rate for the disease or effective clinical management of cases.
- The data suggest successful control and possibly near-elimination of Filariasis in China, congruent with the World Health Organization's (WHO) Global Programme to Eliminate Lymphatic Filariasis (GPELF) targets.
- Absence of reported cases for the majority of the time-span and no increase in case numbers over the 13-year period reflects a stable epidemiological situation with minimal public health impact as of October 2023.

## Cases Analysis

From January 2010 to October 2023, the data reflect zero reported cases of Filariasis in mainland China each month, with only two exceptions. In August 2011 and August 2021, there was one case reported each of these months, which indicates isolated occurrences over a span of nearly 14 years. The extremely low incidence reflects the success of China's filariasis elimination programs, potentially indicating effective preventive measures, surveillance, and control strategies that have kept the disease at bay.

## Deaths Analysis

During the same period, the number of deaths due to Filariasis in mainland China was consistently reported as zero. This suggests that, in the rare instances where Filariasis cases were detected, they did not result in mortalities, which can be attributed to early detection, effective treatment, and the non-lethal nature of the disease in the reported cases. The data confirm the successful management of Filariasis in China and echo the World Health Organization's validation of China's elimination of Filariasis as a public health problem in 2007.

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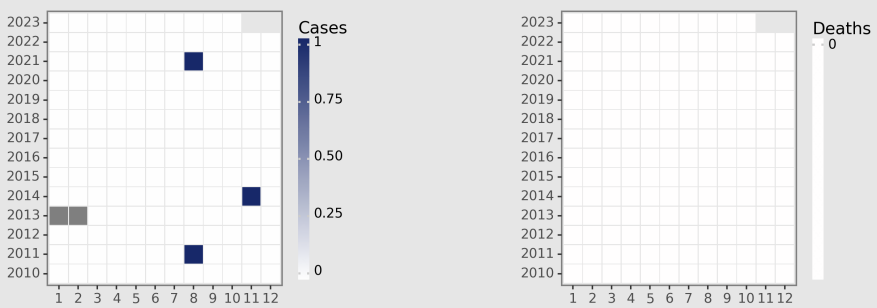


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# Chinese Notifiable Infectious Diseases Surveillance Report

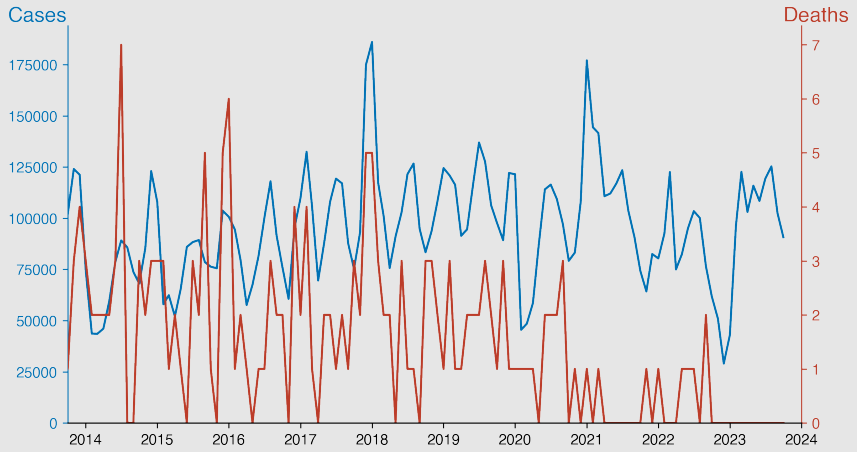
## Infectious diarrhea

October 2023

## Introduction

Infectious diarrhea is a condition characterized by the frequent passage of loose, watery stools resulting from the infection of the gastrointestinal tract by pathogens such as bacteria, viruses, or parasites. Common etiological agents include Escherichia coli, Salmonella, Shigella, Rotavirus, and Giardia lamblia. Transmission often occurs via consumption of contaminated food or water or through person-to-person contact. Symptoms can range from mild discomfort to severe dehydration, potentially necessitating medical treatment. Prevention strategies focus on sanitation, food safety, and vaccination for certain pathogens.

## Temporal Trend




## Highlights

Cases of infectious diarrhea in mainland China have displayed recurring seasonality, with peaks frequently occurring in the summer months (June to August) and a noticeable decrease towards winter.
- The overall trend from 2010 to 2023 indicates an increase in the number of cases, with a significant rise observed from 2017 onwards.
- Comparatively lower case counts were noted in 2020 during February and March, potentially due to stringent public health measures during the COVID-19 pandemic, resuming to prior trends in subsequent months.
- Remarkably, the mortality associated with infectious diarrhea has decreased over time, with no deaths reported from March 2021 onward despite the increased number of cases. This could be indicative of improvements in medical care, public health interventions, or reporting practices.

## Cases Analysis

The data indicates a progressive increase in infectious diarrhea cases in China between January 2010 and October 2023, with seasonal peaks typically observed in the warmer months (May to September). This seasonal pattern may be attributed to factors such as temperature and humidity, which can affect the transmission of causative pathogens. Notably, there are anomalies in reporting with missing data in early 2013 and a significant spike in cases beginning in 2017, with the highest count in December 2017 (174,969). Of interest is the drop in February 2020, possibly associated with public health interventions during the COVID-19 pandemic.

## Deaths Analysis

The number of deaths due to infectious diarrhea in China from January 2010 to October 2023 was low relative to the number of cases, with no fatalities reported after February 2023. Peak mortalities are sporadic, with no clear seasonal trend. The highest reported deaths in a single month were 7 (July 2014). The mortality data suggests effective case management and control measures, given the low fatality rates despite high morbidity in certain periods. The zero fatalities reported from March 2023 onwards could reflect improvements in prevention, reporting fidelity, or healthcare interventions.

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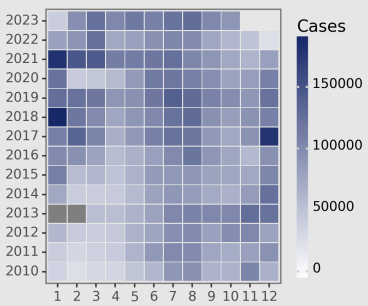


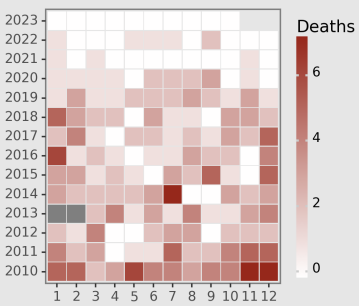


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# Chinese Notifiable Infectious Diseases Surveillance Report

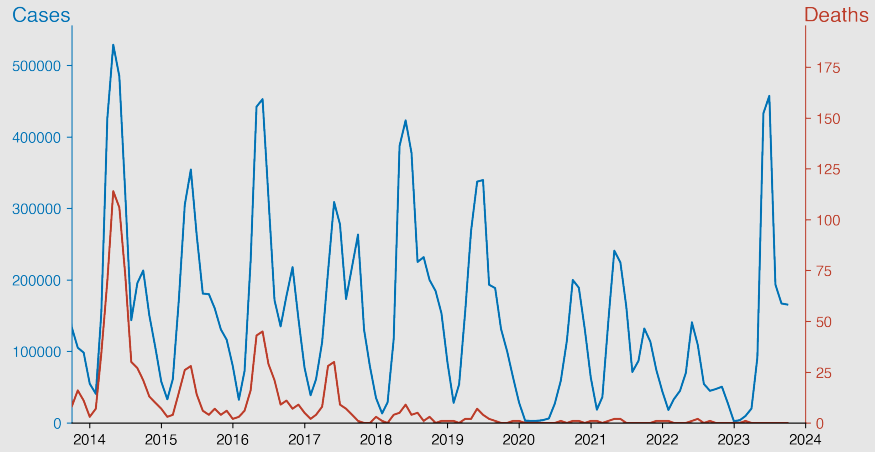
## Hand foot and mouth disease

October 2023

## Introduction

Hand, foot, and mouth disease (HFMD) is a contagious viral infection common in children and characterized by sores in the mouth and a rash on the hands and feet. It is most frequently caused by coxsackievirus A16 and enterovirus 71. HFMD spreads through contact with an infected person's nasal secretions, saliva, fluid from blisters, or stool. Symptoms include fever, reduced appetite, sore throat, and a feeling of being unwell, followed by painful sores in the mouth and a rash with blisters on hands, feet, and sometimes buttocks. It typically resolves on its own within 7-10 days.

## Temporal Trend




## Highlights

Seasonal peaks observed every year, with the highest number of cases typically occurring from May to July, suggesting a robust seasonality pattern for Hand foot and mouth disease (HFMD).
- A dramatic decrease in cases and deaths in 2020, potentially due to public health interventions for COVID-19 such as social distancing, which could have inadvertently impacted HFMD transmission.
- Post-2020, the number of cases gradually rebounded to pre-pandemic patterns by 2023, possibly due to relaxation of COVID-19 measures and resumption of normal activities.
- No reported deaths from HFMD in mainland China since the substantial decline in cases in 2020, indicating improved disease management or reporting.

## Cases Analysis

Hand, foot, and mouth disease (HFMD) cases in mainland China show notable seasonality with peaks in June and July, reflecting typical enterovirus transmission patterns. Starting in 2010 with substantial monthly variations, cases dramatically increased to over 300,000 during warm months, signaling conducive conditions for viral spread. Reported cases reached their zenith in 2014, followed by a general decline through 2019. A substantial drop in 2020 aligns with COVID-19 pandemic interventions, affecting HFMD incidence due to lockdowns and heightened hygiene practices. The uptrend resumes in 2021 and continues into 2023.

## Deaths Analysis

Deaths associated with HFMD in China exhibit a generally decreasing trend over the years. The highest mortality was recorded in 2010, with a death count peaking at 186 in May. Subsequently, yearly peaks persist but with a lower frequency and magnitude, signaling improved disease management and possible increases in population immunity or virulence changes. The impressive reduction in deaths from 2020 onwards, with zero deaths in many months, likely corresponds to reduced transmission due to COVID-19 control measures and possibly improvements in healthcare. By 2023, HFMD-related mortality remains minimal, showing effective ongoing control and response efforts.

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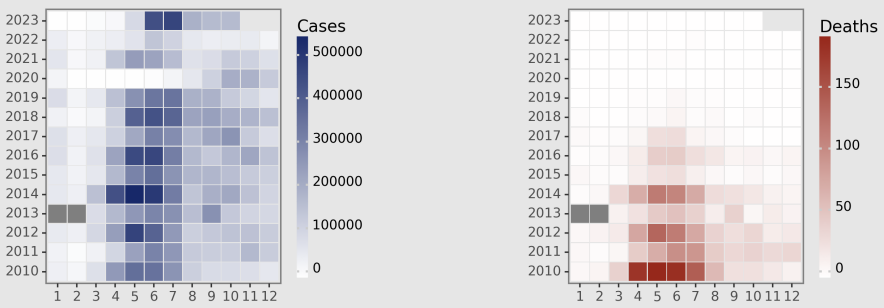


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