

Chinese Notifiable Infectious Diseases Surveillance Report

November 2023



EPICHOLOGY in EPIDEMIOLOGY

Genetics to implementation in health
epidemiology.

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IMPORTANT

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Chinese Notifiable Infectious Diseases Surveillance Report

November 2023

Disease	Cases			Deaths		
	Reported	MoM*	YoY**	Reported	MoM*	YoY**
Plague	1	1.0 (/)	1.0 (/)	0	0.0 (/)	0.0 (/)
Cholera	0	-2.0 (-100.00%)	0.0 (/)	0	0.0 (/)	0.0 (/)
SARS-CoV	0	/ (/)	/ (/)	0	/ (/)	/ (/)
Acquired immune deficiency syndrome	5,664	454.0 (8.71%)	1,365.0 (31.75%)	1,955	89.0 (4.77%)	497.0 (34.09%)
Hepatitis	156,977	/ (/)	/ (/)	327	/ (/)	/ (/)
Hepatitis A	1,056	/ (/)	/ (/)	0	/ (/)	/ (/)
Hepatitis B	132,270	/ (/)	/ (/)	35	/ (/)	/ (/)
Hepatitis C	20,280	/ (/)	/ (/)	292	/ (/)	/ (/)
Hepatitis D	19	/ (/)	/ (/)	0	/ (/)	/ (/)
Hepatitis E	2,751	/ (/)	/ (/)	0	/ (/)	/ (/)
Other hepatitis	601	/ (/)	/ (/)	0	/ (/)	/ (/)
Poliomyelitis	0	0.0 (/)	0.0 (/)	0	0.0 (/)	0.0 (/)
Human infection with H5N1 virus	0	/ (/)	/ (/)	0	/ (/)	/ (/)
Measles	78	-10.0 (-11.36%)	-4.0 (-4.88%)	0	0.0 (/)	0.0 (/)
Epidemic hemorrhagic fever	1,320	/ (/)	/ (/)	3	/ (/)	/ (/)
Rabies	12	-1.0 (-7.69%)	-4.0 (-25.00%)	14	2.0 (16.67%)	6.0 (75.00%)
Japanese encephalitis	12	/ (/)	/ (/)	2	/ (/)	/ (/)
Dengue	1,685	-3,703.0 (-68.73%)	1,511.0 (868.39%)	0	0.0 (/)	0.0 (/)
Anthrax	36	-11.0 (-23.40%)	13.0 (56.52%)	0	0.0 (/)	0.0 (/)
Dysentery	1,963	/ (/)	/ (/)	1	/ (/)	/ (/)
Tuberculosis	57,432	-1,807.0 (-3.05%)	9,080.0 (18.78%)	320	-34.0 (-9.60%)	-13.0 (-3.90%)
Typhoid fever and paratyphoid fever	377	-103.0 (-21.46%)	-42.0 (-10.02%)	0	-1.0 (-100.00%)	0.0 (/)
Meningococcal meningitis	12	/ (/)	/ (/)	0	/ (/)	/ (/)
Pertussis	6,410	1,980.0 (44.70%)	4,250.0 (196.76%)	2	2.0 (/)	2.0 (/)
Diphtheria	0	0.0 (/)	0.0 (/)	0	0.0 (/)	0.0 (/)
Neonatal tetanus	1	-1.0 (-50.00%)	0.0 (0.00%)	0	0.0 (/)	0.0 (/)
Scarlet fever	4,637	2,104.0 (83.06%)	2,741.0 (144.57%)	0	0.0 (/)	0.0 (/)
Brucellosis	4,540	/ (/)	/ (/)	0	/ (/)	/ (/)
Gonorrhea	10,065	-263.0 (-2.55%)	2,435.0 (31.91%)	0	0.0 (/)	0.0 (/)
Syphilis	57,719	738.0 (1.30%)	22,567.0 (64.20%)	1	-2.0 (-66.67%)	-2.0 (-66.67%)
Leptospirosis	25	/ (/)	/ (/)	0	/ (/)	/ (/)
Schistosomiasis	3	1.0 (50.00%)	-5.0 (-62.50%)	0	0.0 (/)	0.0 (/)
Malaria	183	-10.0 (-5.18%)	109.0 (147.30%)	0	-1.0 (-100.00%)	0.0 (/)
Human infection with H7N9 virus	0	/ (/)	/ (/)	0	/ (/)	/ (/)
Monkey pox	80	-47.0 (-37.01%)	/ (/)	0	0.0 (/)	/ (/)
Influenza	1,862,998	1,522,029.0 (446.38%)	1,780,335.0 (2153.73%)	1	0.0 (0.00%)	1.0 (/)
Mumps	7,642	-645.0 (-7.78%)	-1,060.0 (-12.18%)	0	0.0 (/)	0.0 (/)
Rubella	89	-21.0 (-19.09%)	-31.0 (-25.83%)	0	0.0 (/)	0.0 (/)
Acute hemorrhagic conjunctivitis	4,940	-18,171.0 (-78.62%)	3,202.0 (184.23%)	0	0.0 (/)	0.0 (/)
Leprosy	34	10.0 (41.67%)	14.0 (70.00%)	0	0.0 (/)	0.0 (/)
Typhus	170	/ (/)	/ (/)	0	/ (/)	/ (/)
Kala azar	19	0.0 (0.00%)	8.0 (72.73%)	0	-1.0 (-100.00%)	0.0 (/)
Echinococcosis	387	76.0 (24.44%)	290.0 (298.97%)	0	0.0 (/)	0.0 (/)
Filariasis	0	0.0 (/)	0.0 (/)	0	0.0 (/)	0.0 (/)
Infectious diarrhea	73,835	/ (/)	/ (/)	0	/ (/)	/ (/)
Hand foot and mouth disease	92,955	-72,572.0 (-43.84%)	42,322.0 (83.59%)	0	0.0 (/)	0.0 (/)
Total	2,352,301	1,417,130.0 (151.54%)	1,884,328.0 (402.66%)	2,626	125.0 (5.00%)	756.0 (40.43%)

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

Overview:

The month of November 2023 has shown a continuation of the multifaceted epidemiological profile characteristic of mainland China, with a wide variety of infectious diseases presenting public health challenges. Examining the sheer volume of cases reported within the National Notifiable Disease Reporting System, certain diseases display prominence in relation to incidence. Hand foot and mouth disease, with 193,230 reported cases, infectious diarrhea (excluding cholera, dysentery, typhoid fever, and paratyphoid fever) with 127,630 cases, and influenza with 51,676 cases stand out due to their high transmissibility and wide reach across the population. While these conditions typically exhibit lower mortality, their potential for widespread transmission underscores a heavy burden on public health infrastructure, with implications for healthcare provision and disease containment efforts.

In terms of mortality, the data for November 2023 shows significantly fewer deaths relative to the number of cases, a testament to the efficiency of medical interventions and the nature of the diseases. It's important to note that certain diseases, despite lower incidence, have higher fatality rates, for instance, rabies, which reported 42 cases resulting in 37 deaths. This stark case-fatality ratio reflects the lethality of rabies and the urgent need for post-exposure prophylaxis and preventive measures. This emphasizes the importance of not solely focusing on diseases with high incidence but also on those with high mortality rates, even when they occur less frequently.

Concerns:

High-incidence diseases, while generally less fatal, can serve as barometers for underlying systemic issues such as sanitation, access to healthcare, and public health awareness. Hand foot and mouth disease, being most prevalent, could indicate areas where hygiene practices need to be strengthened, especially in environments frequented by children. Public concern often arises parallel to highly infectious diseases due to their impact on day-to-day activities and the visible toll on communities. Awareness campaigns and public education on transmission prevention become crucial elements of the public health response.

Public concern can also increase with the emergence of new diseases or the re-emergence of past diseases. Even with no reported cases, diseases like Monkeypox which has only recently been included in the management of Class B infectious diseases in September, warrant close monitoring due to their potential for outbreaks and international concerns. Public sentiment often links closely with media coverage, necessitating accurate reporting and dissemination of information to avoid unnecessary panic.

Limitations:

The limitations of the data presented include potential underreporting, which can be attributed to disparities in healthcare access across the vast and diverse regions of China. This can result in underdiagnosis or delays in reporting, skewing the actual incidence and prevalence rates. Moreover, the data focuses on reported cases and may miss subclinical or asymptomatic infections that do not seek medical attention, particularly prevalent in diseases like influenza and other respiratory infections.

Monthly statistics also lack the rigor of annual verification, which might lead to issues with accuracy due to duplication or errors in the initial reporting that are only corrected through subsequent verification processes. The lack of real-time verification adds a temporal limitation to the data, meaning that real trend analysis may be more reliable retrospectively on an annual rather than monthly basis.

Recommendations:

Given the data from November 2023, it is recommended for the public to continue practicing basic hygiene measures such as hand washing, especially for diseases like hand foot and mouth disease, and influenza. For high-fatality diseases like rabies, awareness on the importance of timely post-exposure vaccination is crucial. Additionally, the public should be informed about the need for routine vaccinations and the awareness of symptoms that require immediate medical attention. For emerging diseases like Monkeypox, while no cases have been reported, the public should be educated on the symptoms, modes of transmission, and preventive measures to contain potential outbreaks. The authorities should ensure surveillance systems are sensitive enough to detect early cases, which is important for disease containment. Meanwhile, enhancing the capabilities for accurate reporting and timely information dissemination can help better understand disease dynamics and guide public health interventions.

The key message for the public is to remain aware but not anxious; informed but not panicked. Leveraging the existing healthcare infrastructure, adhering to recommended public health guidelines, and remaining vigilant in the face of new and re-emerging diseases can significantly mitigate the impact of these diseases on society.

Notation from Data Source:

* According to the National Bureau of Disease Control and Prevention, not included coronavirus disease 2019 (COVID-19).

† The number of deaths of acquired immune deficiency syndrome (AIDS) is the number of all-cause deaths reported in the month by cumulative reported AIDS patients.

§ Since September 20, 2023, Monkeypox was included in the management of Class B infectious diseases.

¶ Infectious diarrhea excludes cholera, dysentery, typhoid fever and paratyphoid fever.

The number of cases and cause-specific deaths refer to data recorded in National Notifiable Disease Reporting System in China, which includes both clinically-diagnosed cases and laboratory-confirmed cases. Only reported cases of the 31 provincial-level administrative divisions in Chinese mainland are included in the table, whereas data of Hong Kong Special Administrative Region, Macau Special Administrative Region, and Taiwan, China are not included. Monthly statistics are calculated without annual verification, which were usually conducted in February of the next year for de-duplication and verification of reported cases in annual statistics. Therefore, 12-month cases could not be added together directly to

calculate the cumulative cases because the individual information might be verified via National Notifiable Disease Reporting System according to information verification or field investigations by local CDCs.

News information since November 2023 in Chinese Mainland

Summary:

Since November 2023, mainland China has experienced a significant rise in respiratory illnesses, primarily affecting children, following the lifting of COVID-19 restrictions and coinciding with the cold season. The increase in respiratory diseases, including influenza, *Mycoplasma pneumoniae*, respiratory syncytial virus (RSV), and persistent cases of SARS-CoV-2, is attributed to an "immunity debt" phenomenon. This concept suggests that the population's immunity to these pathogens has waned due to prolonged public health measures against COVID-19. However, there has been no indication of a novel pathogen causing these illnesses.

Outbreaks of Known Diseases:

The outbreaks of respiratory illnesses in China stem from known diseases, particularly influenza, *Mycoplasma pneumoniae*, and RSV. *Mycoplasma pneumoniae* and RSV are common among the pediatric population, leading to hospitals, especially in regions such as Beijing and Liaoning, being overwhelmed with sick children. Symptoms caused by these infections range from cough and cold to fever, which are generally manageable with treatment. Health officials expected a "lockdown exit wave," similar to patterns observed in other countries that lifted COVID-19 restrictions. In response to the outbreaks, the Chinese health ministry has increased the number of fever clinics and strengthened disease surveillance measures.

Emergence of Novel Pathogens:

To date, health authorities, including the World Health Organization (WHO) and Chinese health officials, have not reported any new pathogens related to the upsurge in respiratory illnesses. The current situation is linked to known circulating pathogens, rather than any newly identified viruses. Health experts are scrutinizing the possibility of "immunity debt" where a reduced level of immunity in the population due to the absence of regular exposure to these pathogens during strict COVID-19 measures has led to increased vulnerability.

In conclusion, the situation in China marks a renewed challenge of managing known respiratory pathogens, with substantial impacts on the healthcare system, but it does not pose a new threat to global health.

News information since November 2023 around world

Summary:

Recent global infectious disease events extend across continents, highlighting both the resurgence of known diseases and the potential threat of novel pathogens. While no new pathogens have been reported from the available sources, several outbreaks underline the importance of vigilance in the public health sphere.

Outbreaks of Known Diseases:

1. In France, a study found 39 cases of *Campylobacter fetus* infections, with a high mortality risk linked to the 21 patients who developed bacteremia.
2. The Democratic Republic of the Congo reported intrauterine transmission of mpox in a stillborn fetus, a reminder of the ongoing concerns surrounding mother-to-child transmission of infectious agents.
3. Twenty New Zealand children suffered from primary peritonitis caused by Group A Streptococcus, indicative of a broader rise in invasive GAS infections worldwide.
4. Two distinct subtypes of unencapsulated *Neisseria meningitidis*, sequence type 11, were recognized in Japan, suggesting wider global spread.
5. Australia faced a melioidosis outbreak where seven children contracted the disease after a communal sporting event, prompting calls for increased surveillance and public health initiatives.
6. Non-cystic fibrosis patients in German intensive care units experienced infections with *Pandoraea pneumotropica*, an unusual pathogen requiring further attention for healthcare-associated infection control.
7. Studies utilizing Micro-GPS systems to track Egyptian Rousette Bats (ERBs) presented evidence of potential Marburg virus transmission risks to humans.
8. An international study highlighted the spread and multidrug resistance of Carbapenem-Resistant *Klebsiella pneumoniae*.
9. Research from Chicago identified a higher risk of SARS-CoV-2 reinfection among persons with HIV, emphasizing the critical need for vaccination within this community.
10. In Italy, a case that saw a strain of *Klebsiella pneumoniae* evolve antibiotic resistance during treatment provided insights into the dynamic nature of bacterial adaptation.
11. Findings related to SARS-CoV-2 in dogs suggested potential neurological implications and the virus's ability to switch hosts, raising concerns for zoonotic disease dynamics.
12. Lassa Virus (LASV) studies shed light on the virus's environmental persistence and resistance, as well as effective disinfection strategies.
13. Enhanced detection methods for novel SARS-CoV-2 variants emerged from simulation studies, adding tools for early discovery and management of new virus forms.

Emergence of Novel Pathogens:

The current sources do not indicate the emergence of any novel pathogens since November 2023. The monitoring of infectious diseases is an ongoing effort, and the absence of reported novel pathogens in these sources may not fully represent the current situation. For the most current and comprehensive information on this topic, seeking data from the World Health Organization and other public health authorities is essential.

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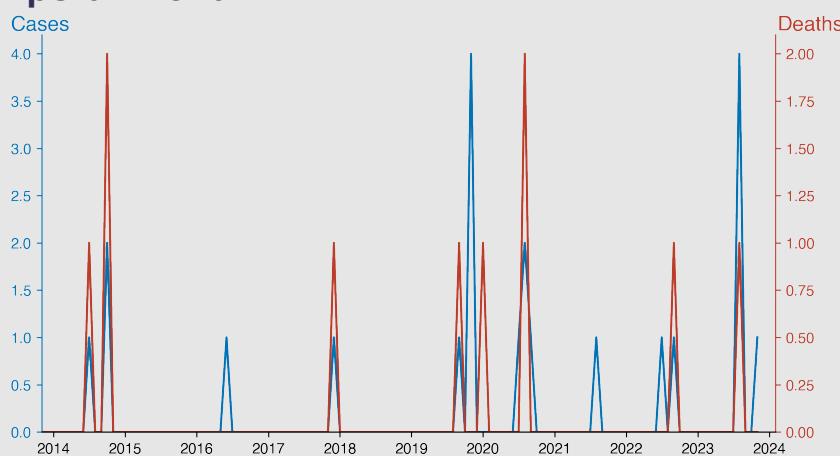
Plague

November 2023

Introduction

Plague is a severe, often fatal bacterial infection caused by *Yersinia pestis*, primarily transmitted through flea bites and contact with infected animals. Historically responsible for outbreaks like the Black Death, it predominantly affects rodents, but can jump to humans. Symptoms typically include fever, weakness, and swollen lymph nodes (bubo). There are three forms: bubonic, septicemic, and pneumonic, each related to the infection's location in the body. Though significantly less common today, plague cases do occur, generally in rural and semi-rural regions. Prompt treatment with antibiotics can prevent complications and death.

Temporal Trend



Highlights

- Plague incidence in mainland China is generally very low, with sporadic cases reported mostly in summer and autumn.
- A relative increase in cases and mortality has been observed in August 2023, hinting at a possible emerging outbreak.
- Year 2019 recorded a higher incidence with 4 cases in November, but there were no reported deaths.
- Overall, mortality seems to be diminishing over time, suggesting improvements in response capacity and health infrastructure.

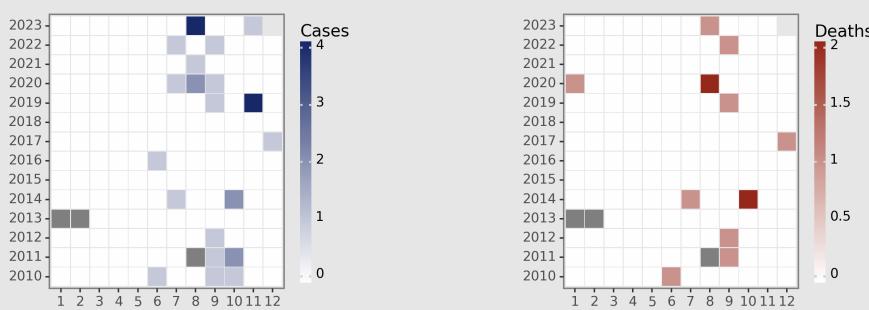
Cases Analysis

The sporadic pattern of Plague cases across mainland China indicates its relative containment across the observed years. The disease recurs annually, typically registering single-digit cases, predominantly in the warmer periods. The largest reported surge occurred in 2023 August (4 cases), perhaps reflective of rare environmental or sociobehavioral factors.

Deaths Analysis

The death data correlates with the case data, further emphasizing the sporadic and generally controlled nature of Plague in mainland China. Deaths occur predominantly within the same months as case surges. The case-fatality rate seems significant, as evidenced in years 2010 (1/2), 2012 (1/1), 2014 (3/3), 2017 (1/1), 2019 (1/5), 2020 (3/4) and 2023 (1/5), indicating an urgent need to strengthen clinical handling and disease response strategies.

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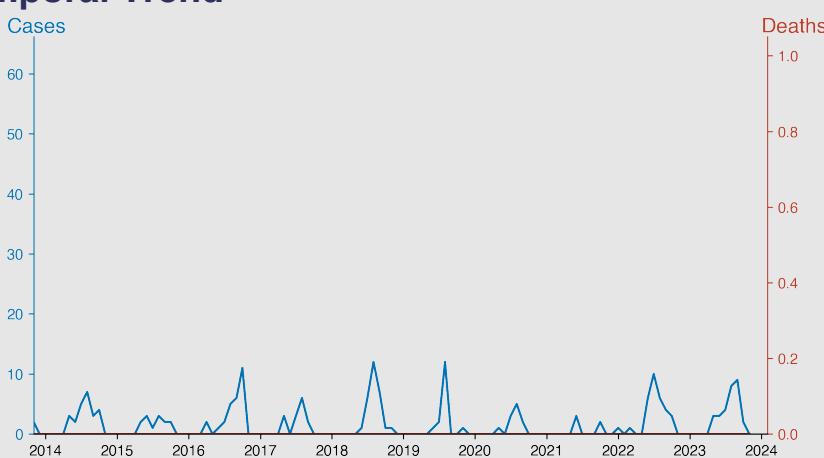
Cholera

November 2023

Introduction

Cholera is an acute, diarrheal illness caused by infection of the intestine with the bacteria *Vibrio cholerae*. An individual can get cholera by drinking water or eating food contaminated with the *Vibrio cholerae* bacteria. The disease is characterized by rapid dehydration due to severe diarrhea and vomiting. Without immediate treatment, cholera can be fatal within hours. Vaccinations and safe water and food practices play crucial roles in cholera prevention and control.

Temporal Trend



Cases Analysis

Observing the cholera cases in mainland China from 2010 to 2023, a noticeable seasonal pattern emerges. The majority of cases tend to occur during the warmer months from May to September. Cases are consistently low, often reaching zero, during the colder months from November to April. A peak was recorded in August 2010 with 63 cases, but the numbers remained relatively low in the subsequent years. Recent years show a mild increase in cases during the summer months, which requires continuous monitoring and preventive efforts.

Highlights

Overall decrease in Cholera cases: The data shows a significant overall decrease in cholera cases in mainland China over the years. This is positive and suggests successful management and control measures.

2. Seasonal variations observed: There are evident seasonality patterns, with more cases reported during the warmer months of May to October, hinting at possible environmental factors contributing to transmission.

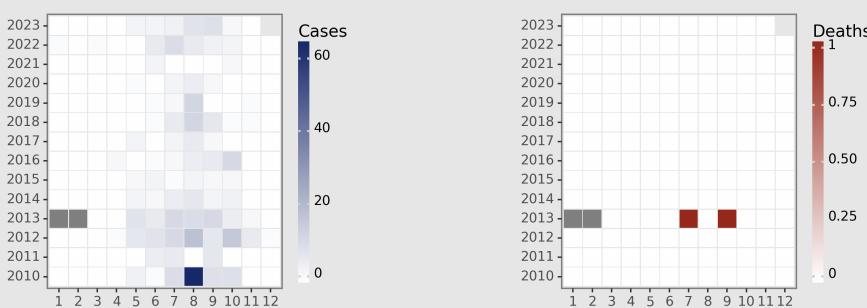
3. Few fatalities: The number of deaths is extremely low compared to the total cases, pointing to effective medical treatments for affected patients.

4. A recent downturn: Zero cases are reported for November 2023, following a slight increase in cases from May 2023, this could signal a decrease in the upcoming months, though continuous surveillance is advised.

Deaths Analysis

Cholera, although a serious infectious disease, shows a low death rate from 2010 to 2023 in mainland China. Only two deaths occurred in the entire period, both in 2013, making the case-fatality rate extremely low. This low mortality rate suggests effective treatment and healthcare responses to cholera outbreaks. Considering cholera's potential for fast spread and high death rates in vulnerable populations, this highlights the success of integrated disease surveillance, immediate case reporting, and rapid case management.

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SARS-CoV

November 2023

Introduction

Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) is a viral pathogen responsible for causing severe respiratory illness termed as SARS. Identified in 2003, the virus belongs to the family Coronaviridae, primarily zoonotic in origin, with bats being the natural reservoir. Transmission to humans typically involves intermediary hosts, and human-to-human spread is possible resulting in epidemics. The disease manifests with flu-like symptoms potentially progressing into severe pneumonia. Preventive measures include personal hygiene practices and the wearing of face masks. The SARS-CoV epidemic of 2002-2003 exhibited the importance of rapid public health

Temporal Trend



Cases Analysis

The provided data for SARS-CoV in mainland China shows an intriguing situation where no cases were reported from January 2010 to December 2023. It's a highly unusual occurrence given the prevalent epidemiological pattern of diseases. Such a situation could be owed to either successful implementation of preventive measures, or potential lapses in detection and reporting.

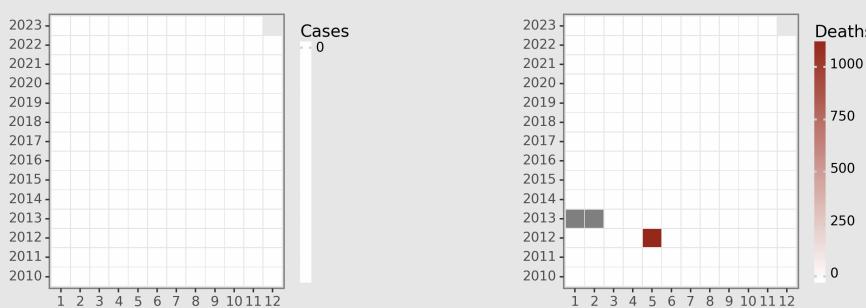
Highlights

- No reported SARS-CoV cases since data collection started in January 2010.
- An anomaly, showing 1093 deaths in May 2012, despite zero cases reported. This may indicate a data entry error and needs review.
- Data for January and February 2013 missing, but zero cases and deaths indicate no concerning trends in SARS-CoV before and after these months.
- As of November 2023, the disease situation is stable with no new SARS-CoV infections or deaths for over a decade.

Deaths Analysis

These figures starkly contrast with SARS-CoV related fatalities noted only in May 2012 where there were 1,093 deaths reported, despite there being zero cases mentioned during that period. This may indicate a possible retrospective addition of deaths previously undiagnosed or unreported, misclassification, or data error, as SARS-CoV requires infection for mortality. This peculiarity warrants further investigation.

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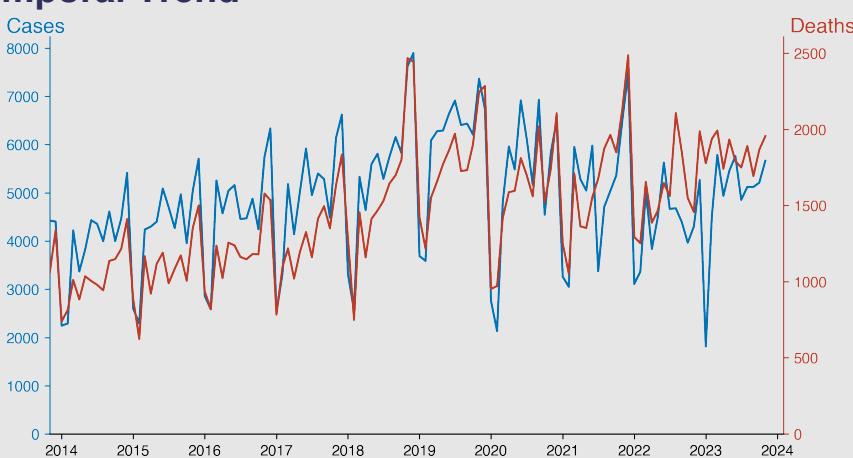
Acquired immune deficiency syndrome

November 2023

Introduction

Acquired Immune Deficiency Syndrome (AIDS) is a chronic, potentially life-threatening illness caused by the Human Immunodeficiency Virus (HIV). It interferes with the body's ability to fight infections and diseases by attacking the immune system, particularly CD4 cells. Over time, HIV can destroy so many CD4 cells that the body is unable to fend off infections and diseases, leading to the development of AIDS. Transmission primarily occurs through unprotected sex, contaminated blood transfusions, or from mother to child during pregnancy, birth, or breastfeeding.

Temporal Trend



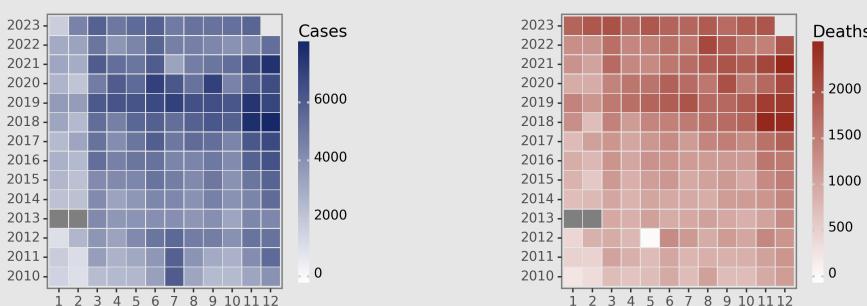
Cases Analysis

Looking at the data from 2010 to 2023, there is an overall rising trend in Acquired Immune Deficiency Syndrome (AIDS) cases reported in mainland China. The peak is observed at 7897 in December 2018. Despite some fluctuations, the number of new cases presented a consistent growth over the years. Seasonality can also be observed, with a higher number of cases often being reported around December, which may be attributed to increased testing during World AIDS Day, December 1st.

Highlights

- There is a general upward trend in both the number of cases and deaths from AIDS in mainland China between 2010 and 2023, indicating an ongoing public health issue.
- The data shows a cyclic pattern: a surge in cases from mid to late each year, followed by a drop at the start of the new year. Similar trend is reflected in the death count.
- As of November 2023, the number of reported new cases and deaths are 5664 and 1955 respectively, which compared to the same month in previous years is relatively high.
- The case fatality ratio (deaths as a proportion of cases) has been fluctuating over the years, yet exhibits a generally increasing trend, requiring further investigation.

Distribution



Deaths Analysis

Comparable to the reported cases, deaths due to AIDS also reflect an increasing trend with the highest mortality reported as 2486 in December of 2021. The mortality figures continue to reflect the contractions in the number of new reported cases, indicating a correlation between newly reported cases and subsequent deaths. It can be deduced that this trend maybe due to late diagnosis, limited accessibility to treatment, or treatment discontinuation, potentially due to stigma or other sociocultural factors. Despite improvement in treatments, this trend underlines the need for enhanced preventive measures and early identification.

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Hepatitis

November 2023

Introduction

Hepatitis is a broad term referring to inflammation of the liver, primarily caused by viral infections. The most common types are Hepatitis A, B, C, D, and E. While Hepatitis A and E are typically caused by ingestion of contaminated food or water, Hepatitis B, C, and D usually occur due to parenteral contact with infected bodily fluids or from mother to child at birth. Symptoms include fatigue, yellow discoloration of the skin (jaundice), abdominal pain, and loss of appetite. Untreated or chronic hepatitis can lead to cirrhosis, liver failure, or liver cancer.

Temporal Trend



Cases Analysis

Data on Hepatitis cases in mainland China spanning from 2010 to 2023 indicate some trends. Yearly case rates fluctuated between 100,000 to 170,000, indicating a long-term endemic, with highest peaks occurring predominantly in spring and summer months (March to October). This could be accredited to vital seasonality factors impacting viral transmission mode. Noticeably, there seemed to be a significant rise in recorded cases from late 2022, peaking in August 2023. This surge suggests a possible outbreak or an advancement in Hepatitis diagnostics within the country for this period.

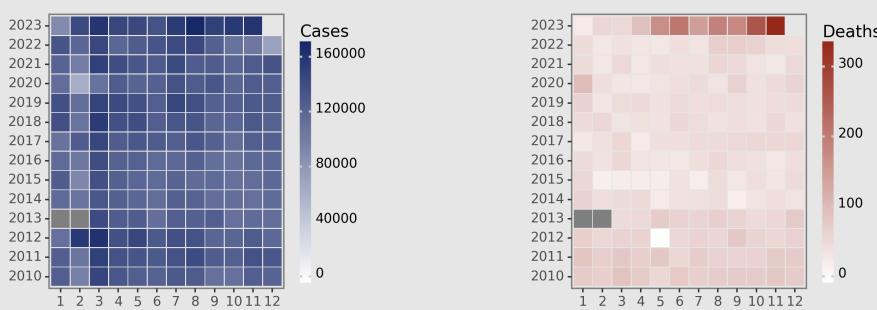
Highlights

- The number of Hepatitis cases in November 2023 experienced a significant spike, with 156977 cases observed, following a steady increase during the year.
- Despite the general rise in cases, there was a concerning, notable increase in the number of deaths from Hepatitis in 2023, reaching a record high of 327 in November.
- Overall, there's a concerning trend of increasing deaths in 2023 compared to previous years, indicating a possible emergence of a more lethal strain, failure in preventive measures, or an increase in disease severity.
- Downward trends in case numbers were occasionally observed, such as in December 2022, suggesting seasonal influences or successful intervention points that could be further investigated.

Deaths Analysis

The trend in Hepatitis-related deaths in China over this period is fairly stable, usually standing below 100 per month, till early 2023. This suggests effective control and/or treatment measures were implemented. However, an alarming escalation in death count is observed from April 2023, reaching its highest point in November. This dramatic increase might indicate a change in the disease's severity, a strain evolution, or compromised medical infrastructure perhaps due to an overwhelming number of cases or other concurrent crises.

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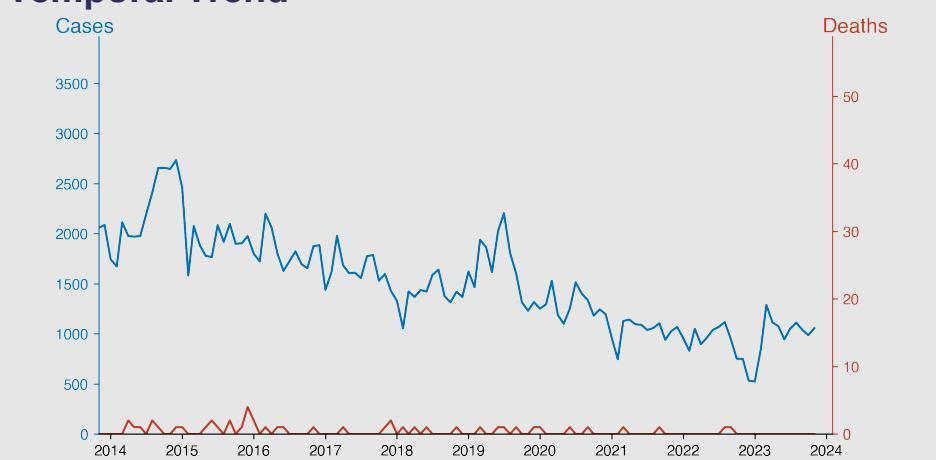
Hepatitis A

November 2023

Introduction

Hepatitis A is a highly contagious liver infection caused by the Hepatitis A virus. It is usually transmitted through the ingestion of contaminated food or water, or direct contact with an infected person. Symptoms may include fever, fatigue, loss of appetite, nausea, abdominal discomfort, dark urine, and yellowing of the skin and eyes (jaundice). While the disease can be serious, most people recover fully with no permanent liver damage. Vaccination is available and effective in preventing Hepatitis A.

Temporal Trend



Cases Analysis

The Hepatitis A cases data from 2010 through 2023 discloses an overall decreasing trend in Mainland China. High numbers were observed in mid-2010 with a peak at 3789 cases in August. Thereafter, a gradual decline over the years is evident, with some seasonal surges usually in spring and summer months. Nevertheless, these surges have reduced in magnitude over the years, and by 2023, the highest monthly reported cases dropped to 1289 in March.

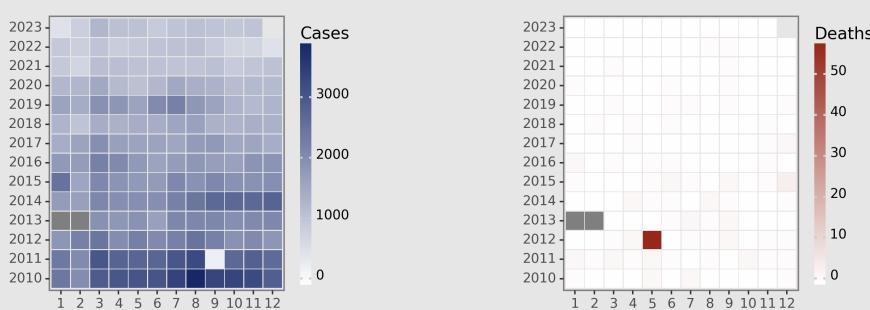
Highlights

- Long-term downward trend: Over the years, the number of Hepatitis A cases has shown a steady decrease from nearly 4000 cases per month in 2010 to around 1000 cases in 2023. This indicates successful preventive and control measures in place.
- Low mortality rate: Despite fluctuations in case numbers, the mortality rate remained low, generally limited to single-digit numbers each month, highlighting improved treatment regimens.
- Seasonal peaks: Observing the data, it shows a certain seasonal pattern, with the number of cases often peaking around the middle of the year (May to August).
- Current status: As of November 2023, the situation is under control with a total of 1056 cases reported, and no deaths, indicating a continuation of the long-term trend.

Deaths Analysis

The death rate for Hepatitis A in the given period is significantly low, showcasing the non-lethal nature of the virus. A major aberration appears in May 2012, with 56 deaths reported, an anomaly in the general trend. Typically, monthly fatalities oscillate between 0 to 2. It's vital to investigate the sudden spike in 2012 for any systemic healthcare failures. Interestingly, no substantial correlation seems to exist between the number of reported cases and resultant deaths over these years.

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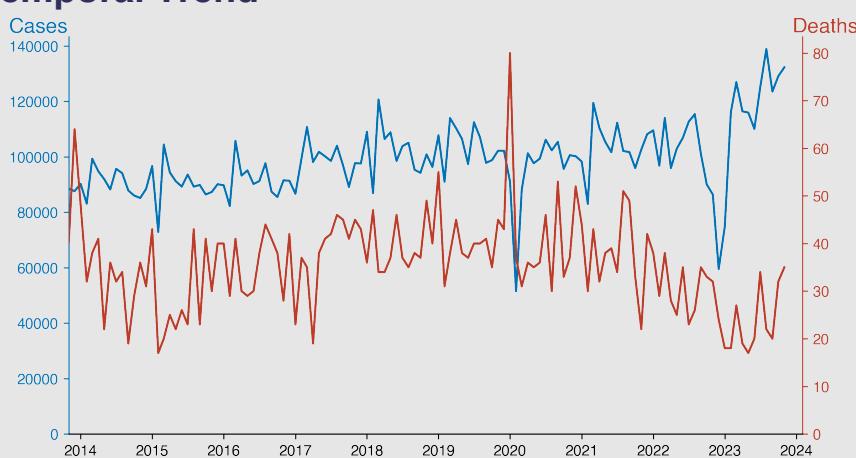
Hepatitis B

November 2023

Introduction

Hepatitis B is a viral infection that aggressively targets the liver and can lead to chronic disease, liver cancer or death. The virus can be transmitted through contact with infected blood or other bodily fluids. While vaccines are available and offer over 90% protection, hepatitis B remains a global health threat particularly in regions that lack widespread immunization. It's critical to educate oneself about prevention measures including vaccination, safe sex practices, and avoiding non-sterile medical equipment.

Temporal Trend



Cases Analysis

Hepatitis B cases reported in Mainland China for the 2010-2023 period maintain a cyclical pattern with peaks showing in March and troughs in February. This repetitive pattern also seems to intensify gradually over the years; for instance, cases spiked from about 117k in March 2010 to about 127k in March 2023. The lowest count was in February 2020 (51k), arguably due to reduced diagnosis during the early stages of the COVID-19 pandemic. Overall, despite minor fluctuations, the accumulated case numbers deem Hepatitis B a significant concern in the region.

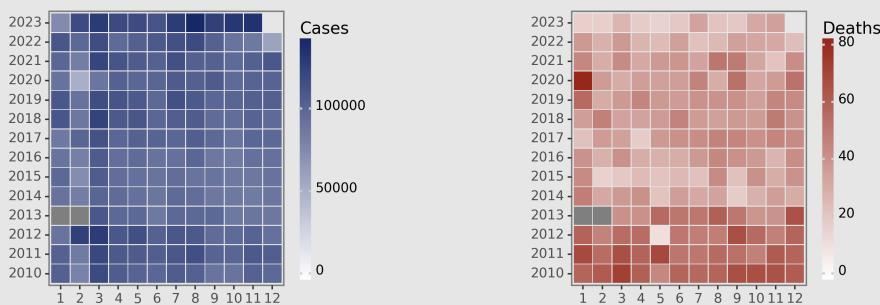
Highlights

- Hepatitis B cases rose from 2010 to 2023, with a particularly sharp increase observed from 2022 to 2023. November 2023 exhibited the highest case rate in the dataset.
- There is a significant reduction in deaths, suggesting improvements in healthcare or interventions.
- Notably, there's a predictable annual dip in reported cases and deaths during the winter months (December-February).
- Despite the nursing efforts, the disease continued to spread at an escalating rate, emphasizing the need for enhanced preventive measures.

Deaths Analysis

Fatalities associated with Hepatitis B over these years demonstrate a comparatively stable trajectory, with minor monthly fluctuations ranging between averagely 17 and 80. Although progressing steadily over the period, the mortality rate appeared moderately low, indirectly reflecting the efficiency of healthcare interventions. A sharp peak to 80 deaths was observed in January 2020, presumably due to complications with the surging Covid-19 pandemic. Aside from that, the deaths seemed to be on a downward trend, emphasizing the growing control over Hepatitis B's severe consequences in mainland China.

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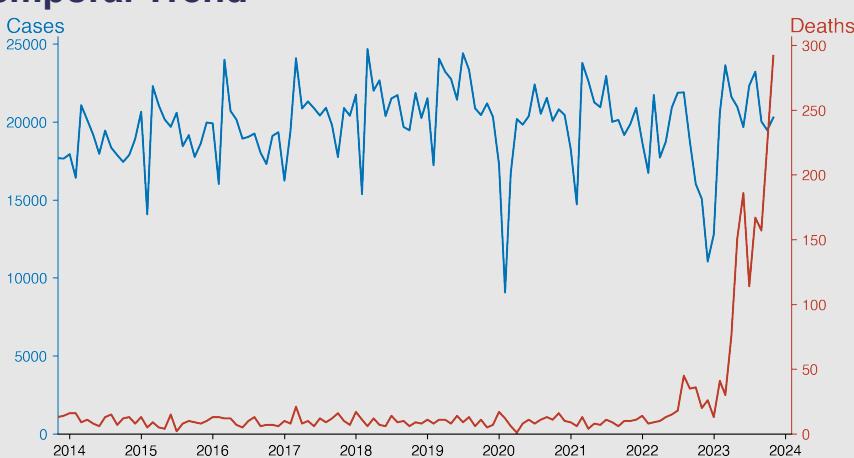
Hepatitis C

November 2023

Introduction

Hepatitis C is a viral infection that causes liver inflammation, possibly leading to severe liver damage. The hepatitis C virus (HCV) is spread through contaminated blood, often via intravenous drug use, unsafe injection practices, or inadequate sterilization of medical equipment. Often asymptomatic in its early stages, chronic Hepatitis C can eventually lead to conditions such as cirrhosis, liver cancer, or liver failure. Despite these risks, advancements in antiviral medications have dramatically improved the prognosis and cure rates for this disease.

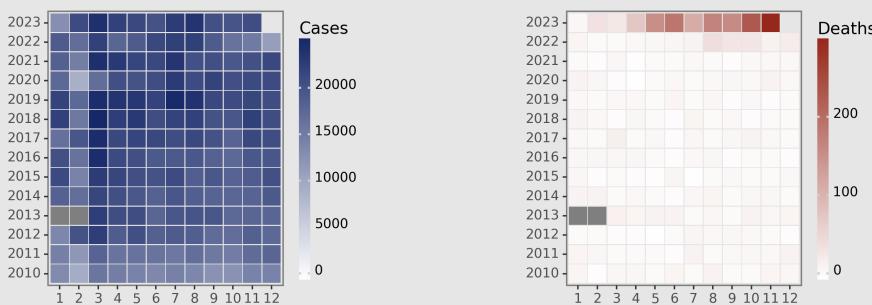
Temporal Trend



Cases Analysis

Hepatitis C cases in mainland China have shown an overall increasing trend from 2010 to 2023 with periodic fluctuations peaking in 2016, 2019, and 2021 consecutively (approximately 24k cases each time). Despite a substantial decline in 2020 presumably due to healthcare resource allocation amid the COVID-19 pandemic, the numbers rebounded in 2021. Interestingly, a significant rise was seen in February 2023 and remained constantly high afterward. This could be due to various factors including improved diagnostic testing, increased public awareness leading to more individuals getting tested, or even a potential outbreak.

Distribution



Highlights

- Noticeable increase in deaths despite decline in cases: Although there has been a slight decline in Hepatitis C cases in mainland China through 2023, an alarming increase in the number of deaths is recorded due to the disease.
- Highest death month: In November 2023, the highest number of deaths (292) is recorded, which is unprecedented compared to previous years' data.
- High disease burden: Despite small fluctuations in case numbers, Hepatitis C continues to pose a high burden, which is indicative of the persistent nature of the virus and the challenge to disease control.
- Unpredictable death rate: The escalating and unsteady death rate over recent months indicates an urgent need to enhance disease management and preventive strategies.

Deaths Analysis

The number of deaths due to Hepatitis C from 2010 to 2021 had no specific trend and remained relatively low (<20 deaths per month). However, an alarming spike became evident: from August 2022, deaths rose significantly, culminating in a peak of 292 deaths in November 2023. This vertiginous increase might suggest that the healthcare system is struggling to provide adequate care or it could indicate a much more aggressive strain of the virus. In-depth analysis of public health strategies, access to antivirals, and genetic sequencing reports of the virus is imperative.

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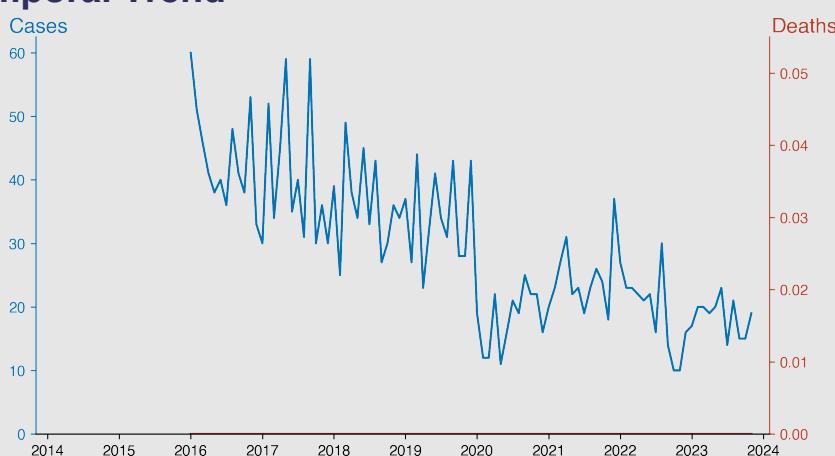
Hepatitis D

November 2023

Introduction

Hepatitis D, also known as "Delta hepatitis," is a liver infection caused by the Hepatitis D virus (HDV). It's a unique form of hepatitis because it can only occur in conjunction with Hepatitis B — it can't be contracted independently. The dual infection can result in a more severe disease and worse outcomes. Hepatitis D can be either acute (short-term) or chronic (long-term) and is transmitted through direct contact with infected blood, sexual contact, or from mother to child at birth. Treatment options are limited and preventative measures are crucial.

Temporal Trend



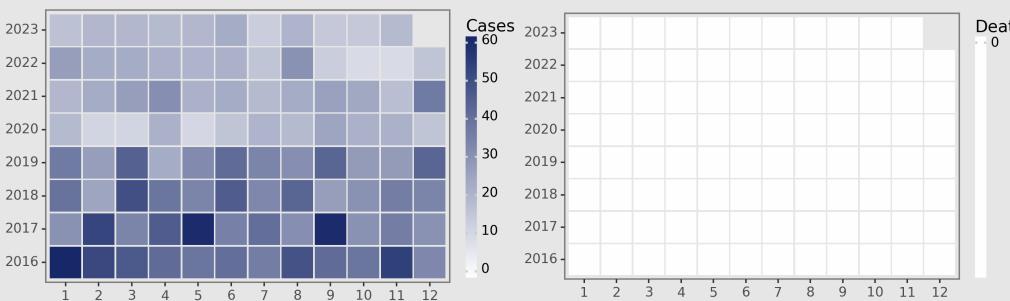
Cases Analysis

In analyzing Hepatitis D cases from 2016 to 2023 in mainland China, we note a downward trend. The number of cases appeared to peak in 2016-2017, ranging from 30 to 60 cases monthly. Over time, a gradual decrease in the number of reported cases is seen, with numbers frequently under 30 from 2020 onward. This implies an effective response which might be attributed to better health regulations, vaccination, or population immunity. However, a degree of cyclical fluctuation can be observed seasonally, suggesting the necessity for ongoing surveillance and preventive measures.

Highlights

- Significant Decline in Cases:** There's been a steady decrease in Hepatitis D cases in mainland China from 2016 to 2023, indicating effective control measures or improved public health protocols.
- No Reported Deaths:** Despite the fluctuation in cases over this time period, there have been zero reported deaths linked to Hepatitis D, implying either effective treatment or mild manifestations of this disease.
- Lowest Caseloads in 2022-2023:** The data suggests a drastic decline in the number of cases in 2022 and 2023, with most months reporting less than 25 cases, pointing towards effective eradication efforts.
- Consistent Caseload in 2023:** Since January 2023, there has been a consistency in the number of cases reported each month, hovering around 15-20, hinting at a stabilized disease situation.

Distribution



Deaths Analysis

Remarkably, despite fluctuating case reports, no deaths were attributed to Hepatitis D over the examined period. This suggests effective management and treatment protocols for reported cases in mainland China, thus resulting in an impressive control of mortality rate. However, this does not diminish the significance of Hepatitis D as a public health issue since the condition can lead to serious liver disease. The zero-death count generally suggests a high standard in healthcare provision, but ongoing preventive measures, early diagnoses, and treatment are vital to maintaining this state.

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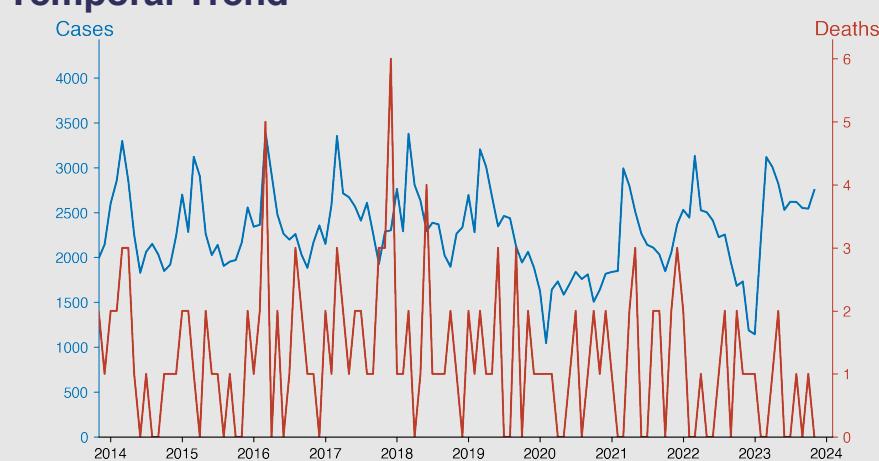
Hepatitis E

November 2023

Introduction

Hepatitis E is a liver disease caused by the Hepatitis E virus (HEV), primarily transmitted through the ingestion of contaminated water or food. Common in several developing countries, it poses significant health risks, particularly to pregnant women. Symptoms range from mild fever, abdominal pain, jaundice to severe liver failure. Although no specific treatment exists, good hygiene practices can significantly reduce its transmission.

Temporal Trend



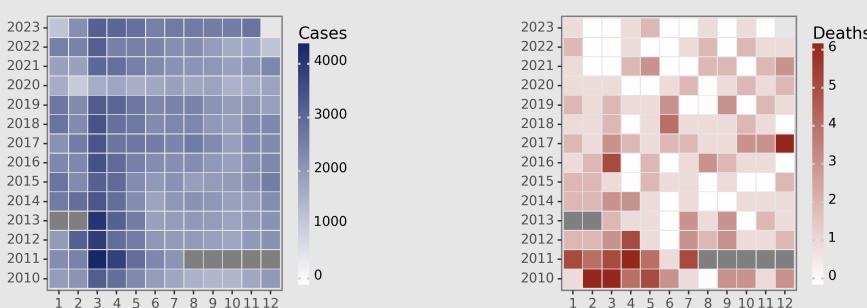
Highlights

- There is a steady decrease in the number of Hepatitis E cases from the peak in 2011 with sporadic cases in 2010, followed by a moderate increase post-2020, suggesting a potential recurrence of the disease.
- Seasonal variation is observed, showing higher incidence rates during March to April, likely due to seasonal fluctuations in population behavior or the virus's lifecycle.
- Despite fluctuations in case numbers, mortality rates remain substantially low, pointing towards effective control and treatment measures.
- As of November 2023, a notable rise is seen in cases but without an increase in deaths, indicating an improved survival rate despite the potentially worsening outbreak.

Cases Analysis

The reported cases of Hepatitis E in mainland China show variable monthly case counts over a span of 14 years. A trend of peaks generally observed in spring (March-April) and troughs, generally in late summer or fall, is noteworthy. This could be subjected to seasonal variations typical to Hepatitis E. By comparison, reported cases significantly reduced around February 2020 likely due to heightened hygiene practices and reduced human interactions amid COVID-19. However, in the post-pandemic era, from March 2021 onwards, the case count seems to be returning to pre-pandemic levels, indicating sustained transmission of Hepatitis E in mainland China.

Distribution



Deaths Analysis

Death cases associated with Hepatitis E are generally low, rarely exceeding five per month over the examined period. This aligns with the fact that Hepatitis E is typically a self-limiting disease with low fatality, more so in regions with access to better healthcare infrastructures, such as mainland China. However, sporadic increase in deaths (e.g., December 2017, July 2016) calls for further investigations into potential risk factors that may increase disease severity. Overall, a pattern correlating fatalities and case peaks is not evident, underscoring the need for more focused research on disease progression and related mortality.

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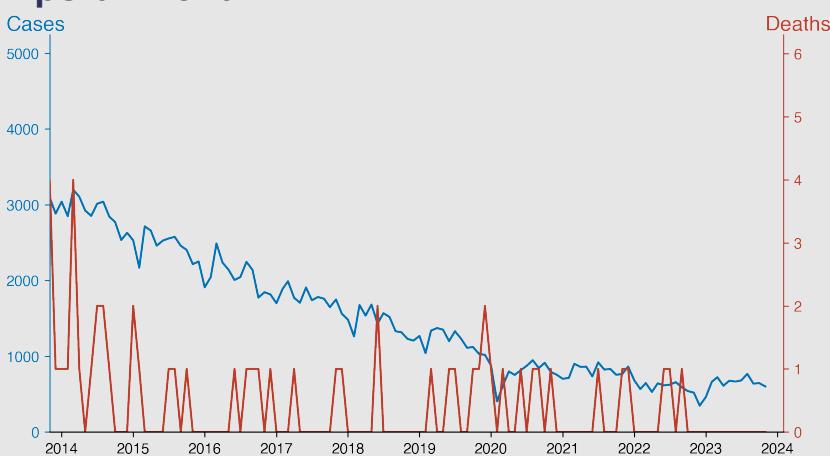
Other hepatitis

November 2023

Introduction

Other hepatitis refers to a group of infectious diseases affected by viruses, typically hepatitis A, B, C, D, and E. These viruses cause inflammation in the liver, impairing its function, and present symptoms such as jaundice, abdominal pain, and fatigue. While hepatitis A and E are generally spread through contaminated food or water, hepatitis B, C, and D are primarily transmitted through infected blood and bodily fluids. Chronic hepatitis can lead to serious health conditions such as liver cirrhosis or cancer. Vaccinations are available for certain types of hepatitis.

Temporal Trend



Cases Analysis

In mainland China, the confirmed cases of Other hepatitis have revealed a consistent downward trend from 2010 to 2023. The initial reported cases were in the high neighborliness of approximately 4000 per month, with a discernible spike every March. Gradually, the numbers dwindled, most noticeably starting from 2016 onwards, with current reports showing figures lingering around the 600-700 cases per month bracket. The consistent reduction may intimate successful public health initiatives, better sanitary measures, or enhanced vaccination efforts.

Highlights

There is a significant downward trend in reported hepatitis cases from 2010 (avg ~4,350 cases/month) to 2023 (avg ~601 cases/month). The decline is consistent over these years, suggesting effective control measures.

- There's a yearly cyclical pattern in the reported cases with relative highs observed in the early part of the year (March-May) and lows towards year-end (November-February).

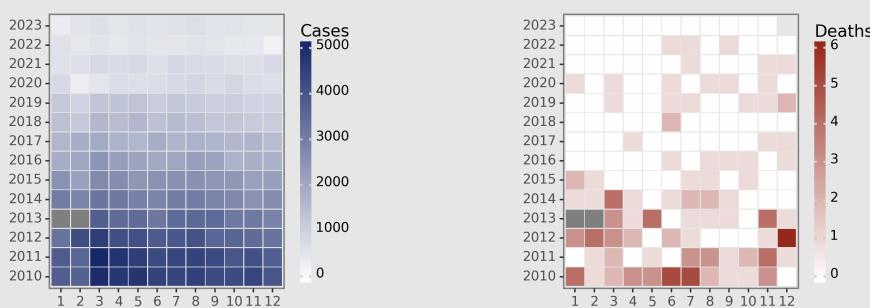
- The fatality rate from hepatitis over this period appears to be extremely low, reinforcing the assertion that effective management of the disease is in place.

- Despite the overall decrease, a slight uptick of cases was observed from January to August 2023, warranting close tracking.

Deaths Analysis

The deaths from Other hepatitis remained significantly low throughout, with monthly tallies rarely exceeding 5 deaths, while numerous instances recorded zero fatalities. Generally, the death toll is uniformly low, comparatively irrespective of the incidence rates, indicating efficient patient care and potential advances in medical treatment procedures. Nevertheless, sporadic increments coincide with slightly elevated case figures, primarily in the earlier years of this period. Recently, month-on-month, there seems to be a significant decline - signifying further improvements in controlling the severity and managing the disease.

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Poliomyelitis

November 2023

Introduction

Poliomyelitis, often termed polio, is an infectious disease caused by the poliovirus. The virus can lead to paralysis by infecting a person's nervous system. Predominantly affecting children under 5, transmission occurs mainly through person-to-person contact, particularly the fecal-oral route. While infected individuals are most contagious immediately before and after symptoms appear, the infection can go unrecognized as symptoms vary from mild, flu-like signs to debilitating paralysis. Immunization through vaccines is the primary prevention method.

Temporal Trend



Cases Analysis

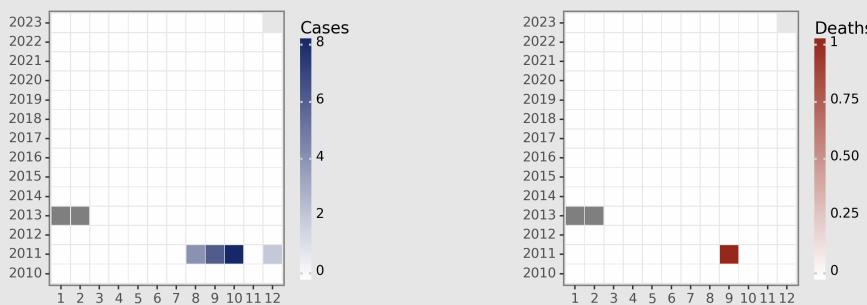
The data indicates a strong control of poliomyelitis in mainland China with the majority of months reporting no cases. However, there's a noticeable surge of reported cases in August, September, and October of 2011; with 4, 6, and 8 cases respectively. Following that, reported cases returned rapidly to zero, demonstrating effective public health interventions. The absence of reported cases in the following years underscores the effectiveness of the polio eradication efforts.

Highlights

No new cases of Poliomyelitis were reported from 2010 to early 2011. However, there was a spike in cases from August to October 2011, with one death reported in September of the same year.

- Following the 2011 outbreak, the situation appears to stabilize, with no polio cases or deaths reported in the subsequent years up to November 2023, indicating sustained disease control measures.
- The unbroken streak of zero cases since late 2011 up to the latest data point of November 2023 suggests that polio might be nearing eradication in mainland China.
- Nevertheless, continued surveillance is vital, given the disease's potential for transmission even in polio-free areas due to international travel and migration.

Distribution



Deaths Analysis

The low mortality from poliomyelitis is evident in the data, with only a single reported death in September 2011 at the same time as the peak in case reports. This suggests adequate healthcare response and treatment capabilities during the outbreak. No further deaths were reported in the subsequent months to the present, reflecting effective disease control and prevention strategies in mitigating the deadly potential of poliomyelitis.

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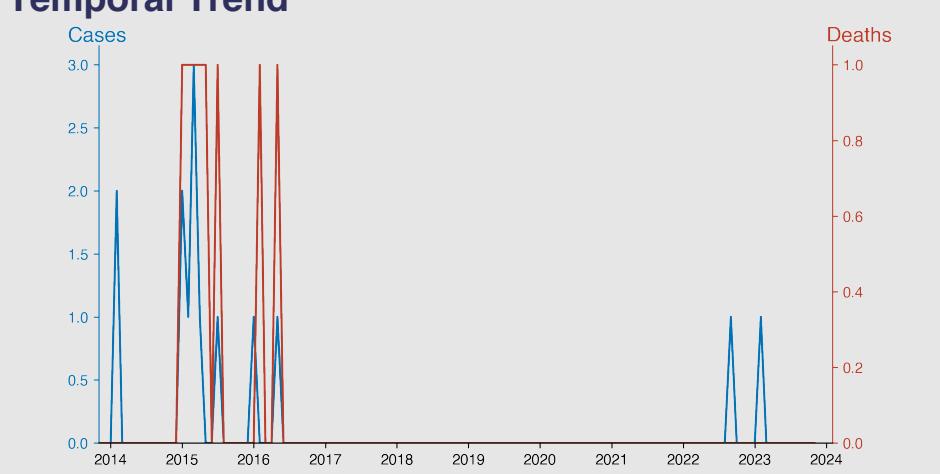
Human infection with H5N1 virus

November 2023

Introduction

H5N1 is a subtype of the influenza A virus, known to cause severe illnesses in humans. It first infected humans in 1997 in Hong Kong and has since spread across Asia and globally causing significant mortality. The primary mode of human infection is through direct or indirect contact with infected poultry or surfaces contaminated with secretions/excretions from infected birds. Though it primarily affects birds, it can jump species, sparking concern over potential pandemics due to the virus's ability to mutate. As such, H5N1 is considered a significant pandemic threat.

Temporal Trend



Cases Analysis

The table details human infection cases due to the H5N1 virus in mainland China from January 2010 to November 2023. The data exhibits sporadic outbreaks rather than a consistent trend. The largest number of cases is reported in March 2015, with 3 cases. The disease's episodic nature, interspersed with lengthy periods of zero reported cases, hints towards sporadic outbreaks perhaps in tandem with certain conditions or seasonal variations. Moreover, the high case fatality rate is also apparent, often pairing cases with deaths.

Highlights

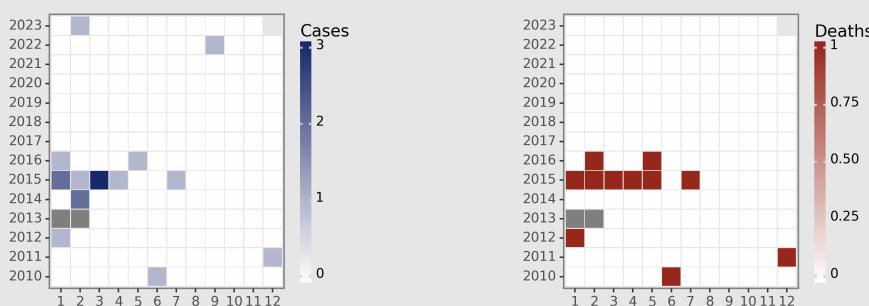
The H5N1 virus displays sporadic trends of infection and associated deaths in mainland China, indicative of isolated outbreak events.

2. Case occurrence and death ratio are remarkably low, with only a few cases recorded and most years experiencing no cases nor deaths at all.
3. A significant increase in infections is noticeable in 2015, although with limited associated mortality.
4. Despite minor upticks in several years, no sustained increase in infection has been observed, and the situation is currently under control as of November 2023.

Deaths Analysis

Across the time span, there are intervals with notable death occurrences due to H5N1, reflecting high mortality rates. Deaths often occur in months with reported cases, implying a high case fatality rate. Specifically, the highest death count recorded in a single month is 1, occurring in various disparate months. Noticeably, there were singular instances in May 2015 where a death occurred with no newly reported cases, indicating a delayed mortality from existing cases. No discernible temporal trend for deaths emerges, alike the disease cases, suggesting sporadic rather than seasonal occurrence.

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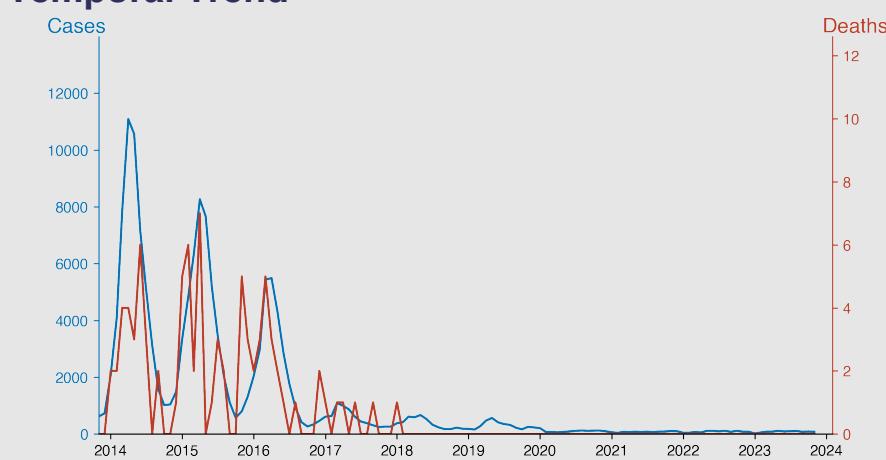
Measles

November 2023

Introduction

Measles is a highly contagious viral disease prevalent worldwide, primarily affecting children. Highly transmissible through respiratory droplets, it manifests as a rash, fever, and flu-like symptoms. Despite being preventable with a safe and cost-effective vaccine, measles remains a significant cause of death among young children globally. Long-term complications can include pneumonia, encephalitis, and subacute sclerosing panencephalitis (SSPE), a rare but fatal degenerative disease of the central nervous system.

Temporal Trend



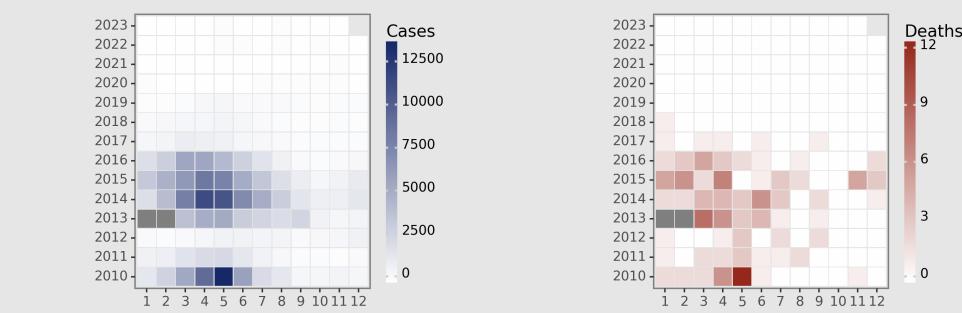
Cases Analysis

The data from 2010 to 2023 presents a trend in the reported cases of measles in mainland China. There was a sharp increase in measles cases between 2010 and 2015. The highest numbers of cases were reported annually between March and May. After 2015, a notable decrease in the number of cases began, with 2015 being the peak year of measles cases. Post-2015, the annual case numbers saw a continuous decline, concluding at relatively lower numbers in the most recent years, marking a successful control and measures towards measles.

Highlights

- Measles case counts in China show a declining trend from 2010 to 2023 with peak seasons generally during the spring months (March-April-May) each year.
- There has been a substantial decrease in monthly measles cases from a peak of approximately 13318 in May 2010 to around 78 in November 2023.
- The number of deaths has significantly reduced over time, with no recorded deaths since 2017, demonstrating improvements in health interventions and disease management.
- The year 2020 marks the lowest annual measles cases recorded with a continued downward trend into 2023, presenting a positive outlook in the control and possible elimination efforts.

Distribution



Deaths Analysis

Unlike the case numbers, the death numbers remained consistently low throughout the period from 2010 to 2023, indicating effective healthcare. The highest death toll was recorded in May 2010 with 12 deaths. The reported deaths decreased significantly after 2015, reflecting an improved response to measles infections. From 2018 onwards, no death was reported, suggesting the successful application of preventive and therapeutic measures against measles. Specifically, this can be attributed to efficient immunization programs, improved patient care, and effective early detection practices.

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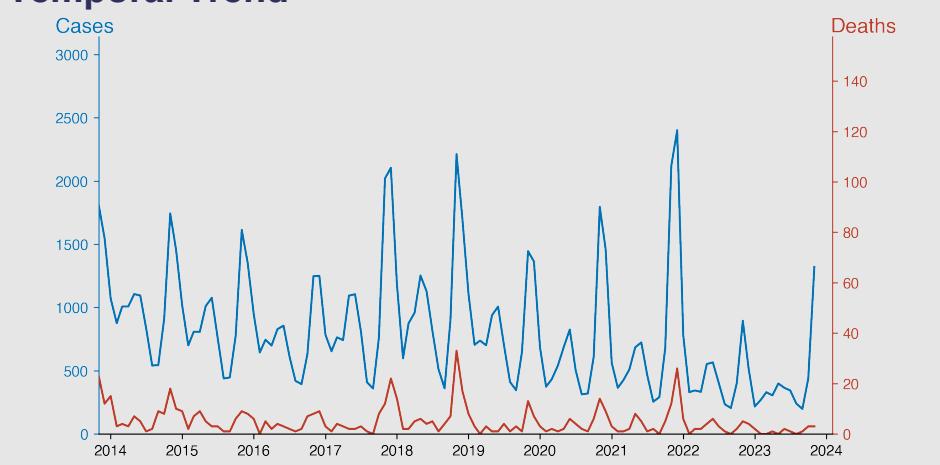
Epidemic hemorrhagic fever

November 2023

Introduction

Epidemic Hemorrhagic Fever (EHF) is an infectious disease typically caused by hantaviruses and transmitted through rodent carriers. It is characterized by fluctuating fever, nausea, body pain, and, in severe cases, bleeding disorders and organ dysfunction. EHF presents worldwide but displays high incidence in Eastern Asia. Its transmission primarily occurs via inhalation of aerosolized rodent excreta. Despite its overall low mortality rate, prompt diagnosis and supportive care are essential to manage complications. Effective rodent control remains the paramount preventive measure.

Temporal Trend



Highlights

- A seasonal pattern is apparent with peak cases typically observed in November and lowest in August.
- Case counts have declined since 2010 with a significant drop from 2022 to 2023.
- Mortality rates vary, but there has been a notable decrease over time.
- As of November 2023, the number of cases is 1320 with 3 deaths, continuing the overall decreasing trend.

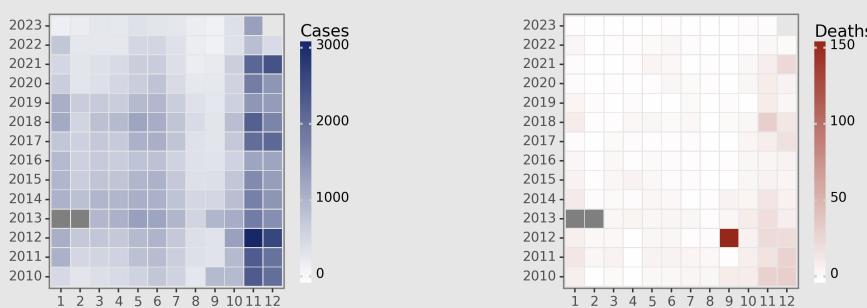
Cases Analysis

Epidemic hemorrhagic fever in mainland China revealed a consistent pattern over the years. A cyclical trend was observed with peak occurrence during colder months (Oct-Nov-Dec) with November being the highest. This may suggest a link with climatic and seasonal factors for disease transmission. It's worth noting that the lowest number of cases occurred predominantly in the warmer months and the number declined significantly after 2021. This could be due to escalated public health measures, weather conditions or changes in the infecting agent itself. (109 words)

Deaths Analysis

Evidence clearly indicates a strong correlation between cases and deaths. The data reveals a similar seasonal pattern in fatalities, which are also highest in the colder months (Nov-Dec-Jan). A significant anomaly was observed in September 2012 with a substantial increase in deaths, possibly linked to a virulent strain or a breakdown in healthcare provision. Post 2021, the death toll substantially went down, which could be due to improved treatment, diagnosis and intervention strategies. However, the case fatality rate appears to have remained relatively stable during these years. (109 words)

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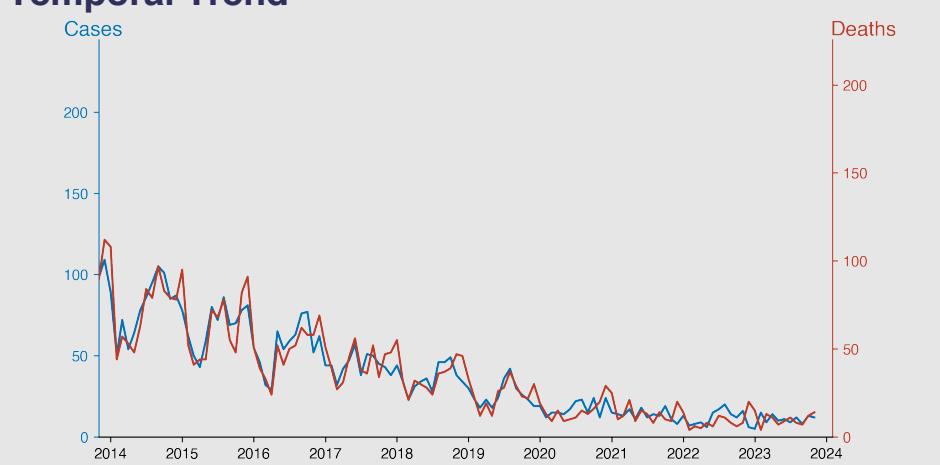
Rabies

November 2023

Introduction

Rabies is a deadly viral infection primarily transmitted to humans through bites, scratches, or licks on broken skin from infected animals, typically dogs. It affects the central nervous system, leading to progressive and fatal inflammation of the brain and spinal cord. Symptoms include fever, headache, excess salivation, muscle spasms, paralysis, and mental confusion. Without immediate treatment with a Rabies Immunoglobulin and continued vaccination post-exposure, it is typically fatal after neurological symptoms have developed. Vaccination is crucial in controlling the spread of rabies.

Temporal Trend



Cases Analysis

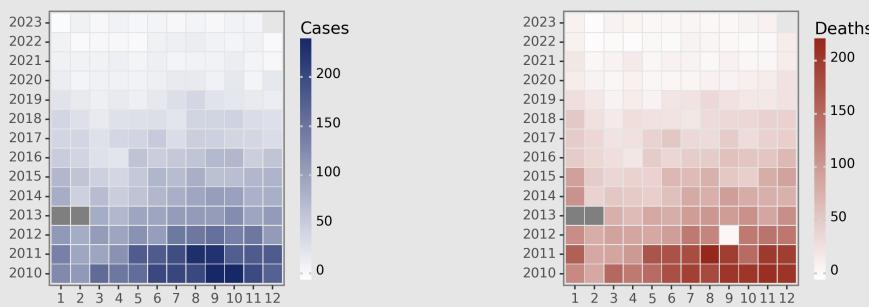
Rabies exhibited a declining trend in mainland China from 2010 to 2023. Early in 2010, monthly cases fluctuated around 150-200, gradually decreasing towards the end of the year. In 2011, a slight rise in cases was observed, primarily during the summer. This pattern evolved into more substantial declines from 2012 through 2023, with instances in 2023 as low as 5–15 recorded cases per month. The significant decline is indicative of effective surveillance and control measures; however, fluctuations highlight the need for continuous monitoring and prevention efforts.

Highlights

There has been a consistent decline in rabies cases and related deaths in mainland China from January 2010 to November 2023.

2. In peak seasons (June through October), both the number of cases and deaths have also decreased over time, reflecting effective disease control.
3. The case fatality rate (number of deaths divided by number of cases) has also improved over the years, suggesting better post-exposure treatment to rabies.
4. As of November 2023, the rabies situation is significantly better compared to the same period in 2010, with the new cases and deaths at the lower end of the scale.

Distribution



Deaths Analysis

A high mortality rate was observed throughout, with deaths often following the same pattern as cases, indicating the deadly nature of rabies. Remarkably, the deaths per month displayed a similar trend to the number of cases, dropping from triple digits in the early 2010s to mostly single-digit numbers by 2023. Despite the significant improvement, the persistence of rabies mortality reaffirms a crucial ongoing public health challenge. Continued efforts are required to target at-risk populations and improve post-exposure prophylaxis to further reduce fatalities.

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Japanese encephalitis

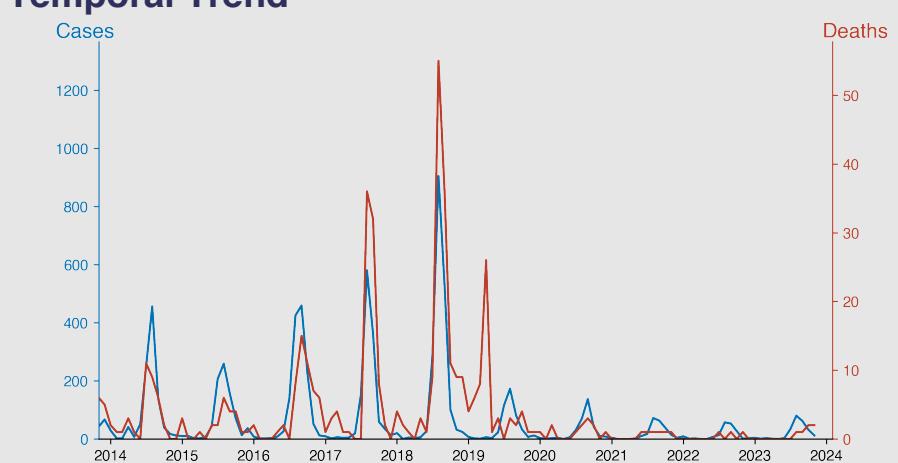
November 2023

Introduction

Japanese Encephalitis (JE) is a severe infectious disease primarily prevalent in Asia, and is caused by the Japanese encephalitis virus transmitted through the bite of infected Culex mosquitoes. Most individuals show mild symptoms such as fever or headache, but severe cases can lead to encephalitis.

Approximately 20%-30% of severe cases are fatal, while survivors often experience long-term neurological consequences. Despite being a vaccine-preventable disease, it remains a significant cause of viral encephalitis worldwide, due to vast under-immunization coverage and maintained virus circulation in mosquito and animal reservoirs.

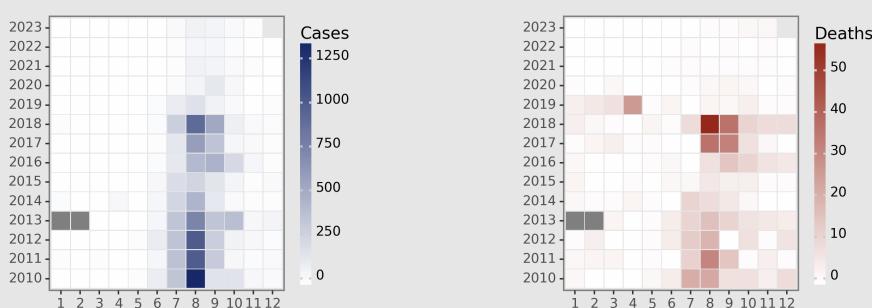
Temporal Trend



Cases Analysis

A typical seasonal pattern is observed for Japanese Encephalitis cases in mainland China. High incidence rates occur from June to October, with peaks often in August. Lower case counts are reported from November to May, implying a probable connection to vector prevalence, which grows in summertime. Over the years, there seems to be a gradual reduction in cases, suggesting improved disease control or changes in alertness and reporting systems. Nevertheless, yearly variations and occasional spurts are present, warranting continuous monitoring and effective interventions. Long-term forecasting models may assist in predicting future trends efficiently.

Distribution



Highlights

- There is a clear pattern of seasonal variation in Japanese encephalitis (JE) cases. Peaks occur in the summer months (June to September) each year, signifying that JE transmission is largely seasonal.
- The overall trend of the disease shows a reduction over years, since the considerable peak of 1301 cases in August 2010, the cases have been on decline and only reach an approximate peak of 80 in August 2023.
- After 2018, negligible to no cases have been recorded in early spring (March through May), hinting towards extreme seasonality or successful control measures.
- Although decreasing, the fatality rate remains non-zero, showing disease can potentially lead to severe health consequences, emphasizing the need for sustained control efforts.

Deaths Analysis

Similar to case trends, the majority of deaths also usually occur from June to October, reflecting the severity and rapid course of Japanese Encephalitis. While the mortality peaked in August 2018 with 55 deaths, a declining trend is noticeable in consequent years, demonstrating the impact of enhanced case management and preventive strategies. However, a concerning aberration occurred in April 2019 with 26 deaths, despite low case numbers - necessitating in-depth investigation into potential causes. Continued focus on early detection and clinical care improvement could help in further decreasing Encephalitis-related mortality.

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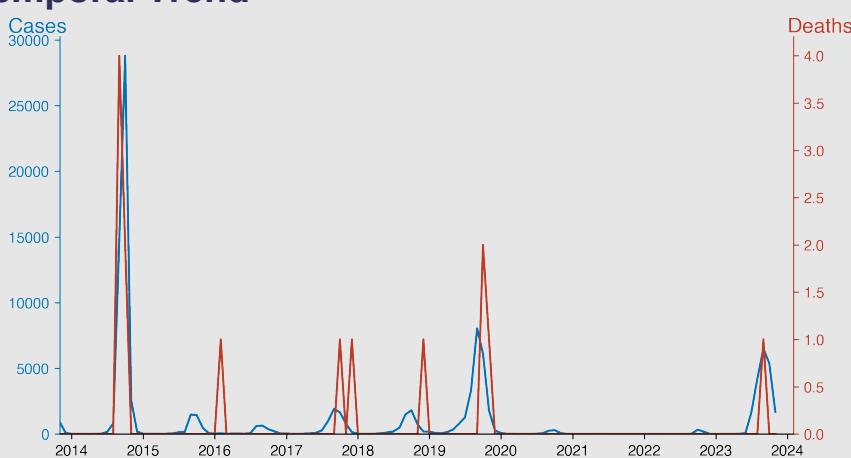
Dengue

November 2023

Introduction

Dengue is a mosquito-borne viral disease prevalent in tropical and subtropical regions around the world. It is caused by the Dengue virus, which can manifest in varying degrees of illness, with severe forms causing hemorrhagic fever. Symptoms appear 4-10 days after the bite of an infected mosquito and can include fever, headache, rash, and joint and muscle pain. There is no specific treatment for Dengue, but early detection and proper medical care can help manage the symptoms.

Temporal Trend



Highlights

- There is a significant seasonality aspect to Dengue spread, with elevated case numbers annually observed in the months from July to November.
- Major outbreak years since 2010 were 2013, 2014, 2017, 2018, and 2019, with 2014 presenting the highest peak in recorded cases, numbering up to 28,796 in October.
- While Dengue cases reduced significantly from 2020 to 2022, 2023 registered an unexpected increase in the incidence, especially in the months from July to October.
- The number of deaths remained very low compared to the total cases, suggesting effective public health care and management of severe infections.

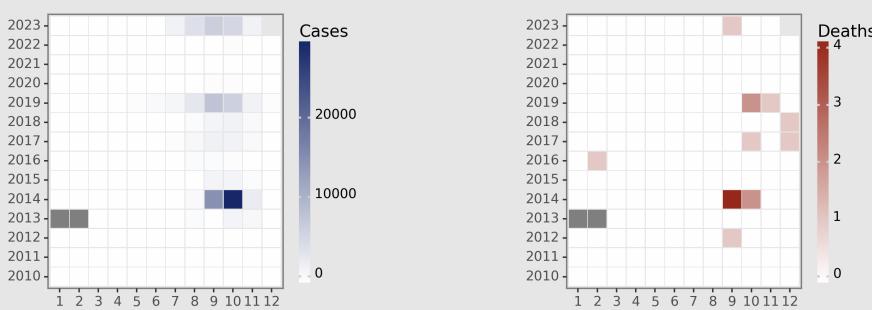
Cases Analysis

The data indicates variable degrees of Dengue fever incidence in mainland China from 2010 to 2023. The reported cases are generally low during winter and early spring, attributed to decreased mosquito activity in cold months. There's a noticeable uptrend in Dengue cases from 2010 to 2014, followed by ebbs and flows in the subsequent years. This cyclical pattern of increase and decrease over years is often observed in mosquito-borne diseases due to the interplay between population immunity, vector population, and climatic factors. 2022 notably recorded a lower incidence, while 2023 witnessed a major outbreak in mid-year.

Deaths Analysis

Overall, the fatality rate of Dengue fever incidents in mainland China is minimal throughout the recorded period, suggestive of effective clinical management. However, a total of 10 deaths were reported from 2012 to 2023, with a peak in 2014 suggesting intensified disease activity or compromised healthcare delivery in this period. It's noteworthy that the fatality rate didn't significantly increase in 2023, the year with the highest number of cases, indicating possible improvements in disease surveillance, patient management, and community response. Yet, continuous vigilance is crucial to maintain and improve this trend.

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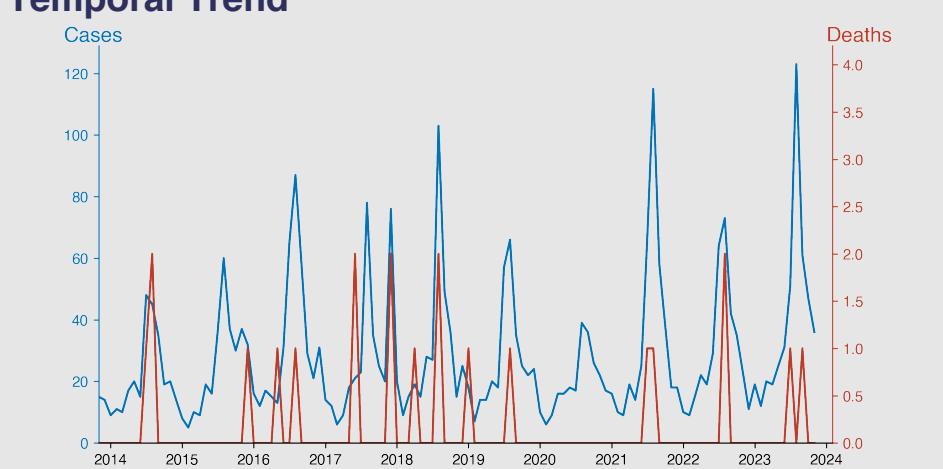
Anthrax

November 2023

Introduction

Anthrax is a serious, sometimes lethal infectious disease caused by the spore-forming bacterium *Bacillus anthracis*. Most common in wild and domesticated animals, it can also occur in humans exposed to infected animals or specific environments. Human transmission forms include cutaneous, gastrointestinal, inhalation, and injection. Symptoms vary by form and range from skin ulcers to severe breathing problems and shock. Effective vaccination and antibiotics are available for prevention and treatment. It's notable as a potential agent for biological warfare and bioterrorism due to spore resilience.

Temporal Trend



Cases Analysis

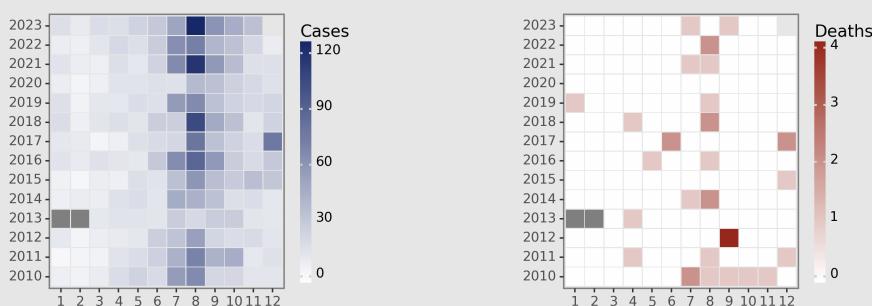
Anthrax cases in mainland China seem seasonal, peaking during summer (July-August) every year. While fluctuations exist across years, an apparent general increase in cases could be observed from 2010's peak of 66 cases in August to 123 cases in August 2023.

Transitional seasons (spring & fall) typically show moderate numbers, while winter months report the least – possibly because Anthrax spores survive better in warm and humid conditions. Although there's insufficient data to establish a pattern for the entire year, the recent spike in 2023's peak period suggests a need to strengthen surveillance and preventive measures.

Highlights

- Periodic Spikes:** A clear, recurring seasonal pattern is evident, with peak occurrences in summer (July and August).
- Minimal Fatality Rate:** Despite fluctuating cases, the fatality rate remains remarkably minimal, indicating effective treatment protocols.
- Increasing Trend:** The peak case number is generally rising from 66 cases in August 2010, to 123 cases in August 2023, indicating a slowly increasing trend.
- Recent Stabilization:** As of November 2023, an apparent stabilization is occurring, with 36 cases reported, down from the August peak.

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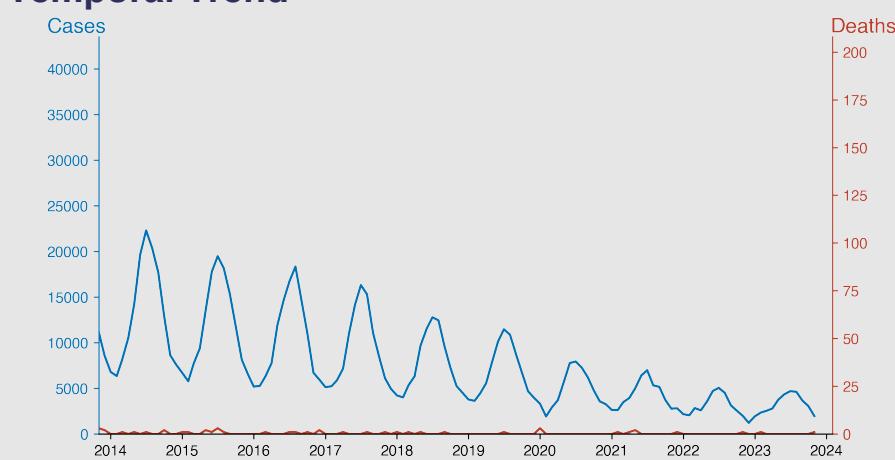
Dysentery

November 2023

Introduction

Dysentery is an inflammatory disease of the intestines, majorly the colon. It's primarily characterized by severe diarrhea containing mucus or blood, accompanied by pain, fever, and abdominal cramps. The leading causes are bacteria such as *Shigella* or certain types of *Escherichia coli*, and parasites like *Entamoeba histolytica*. Transmission occurs mainly via fecal-oral route, accentuated by poor sanitation conditions. Early diagnosis and proper treatment, often involving rehydration and antibiotics, are essential to avoid severe health repercussions and curb its spread.

Temporal Trend



Cases Analysis

Reviewing the reported cases data for dysentery in mainland China from 2010 to 2023 reveals a relatively consistent annual pattern. Typically, recorded cases of dysentery peak between June and August, aligning with the warmer months which can favor conditions for transmission. Exceptionally high cases were observed in August 2010 and 2011, with over 40,000 and 38,000 cases respectively. It is notable that over the studied period, the number of monthly cases generally decreased, from an annual average of about 18,000 per month in 2010 down to around 3,200 per month in 2023.

Highlights

Dramatic reduction in cases over time: From a peak of over 41,000 reported cases in August 2010, we see a consistent trend of decreasing dysentery cases down to less than 2,000 in November 2023.

2. Seasonal Trends: The data exhibits a pattern of seasonal surges. Every year, cases typically peak during the summer months (June, July, August) while dropping to their lowest in the winter months (December, January, February).

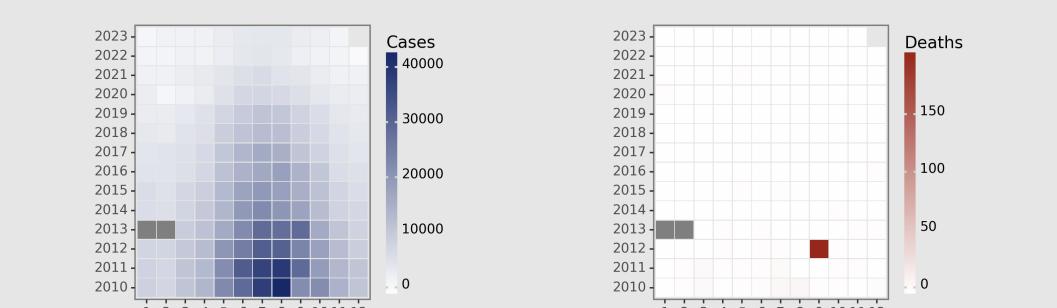
3. Unusual mortality event in 2012: September 2012 stands out as experiencing an exceptionally high mortality rate (198 deaths), contrasting the regular 0-3 deaths per month.

4. Dramatic reduction in mortality: Since 2013, dysentery mortality rates have decreased significantly, with many months reporting no deaths.

Deaths Analysis

The dysentery death toll remains fairly low compared to the number of cases, implying a high survival rate. However, an unusual spike occurred in September 2012, with 198 reported deaths. Otherwise, most months saw between 0-3 deaths, even during peak case periods. Despite fluctuations, deaths due to dysentery reveal a gradual declining trend over the years, implying possible improvements in public health measures or clinical management. Notably, no death was reported from January to March 2023, indicating significant advances in dysentery control and treatment strategies.

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Tuberculosis

November 2023

Introduction

Tuberculosis (TB) is a highly contagious infectious disease typically caused by *Mycobacterium tuberculosis* bacteria. Usually attacking the lungs, it can also target other organs and body parts. Transmission largely occurs through airborne particles expelled when an infected individual coughs or sneezes. Key symptoms include chronic cough, weight loss, night sweats, and fever. High-risk populations include those with weakened immunity, such as those with HIV/AIDS, malnutrition, or those living in environments with poor sanitation or overcrowded conditions. Effective treatment typically involves antibiotics taken for several months.

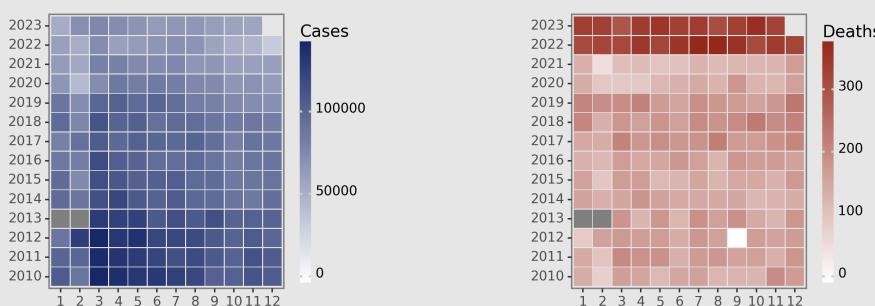
Temporal Trend



Cases Analysis

The recorded Tuberculosis cases in mainland China from 2010 to 2023 demonstrate a clear cyclical trend, with peaks occurring annually around March. This may be attributed to factors such as seasonal changes triggering disease flare-ups. However, an overall steady decline in case numbers is noticeable, from approximately 130,000 at the highest point in 2010 to about 76,000 in 2023. This reduction could be due to improved disease management, health infrastructure, vaccination efforts or a combination of these factors. Despite this promising decline, nationwide Tuberculosis burden remains significant, with 2023 starting with a higher number of cases than the preceding year.

Distribution



Highlights

- The data suggests a long-term decrease in Tuberculosis cases in mainland China from 2010 to 2023, but an increase in the number of deaths on average in the same period.
- Resultantly, the disease's fatality rate has been gradually increasing over the years, indicating higher mortality per recorded case.
- The most recent data from November 2023 shows an ongoing descending trend in cases, but deaths remain at a high level.
- There appear to be cyclical patterns in the disease's incidence with peaks typically occurring around March, hinting towards seasonality or data reporting cycles.

Deaths Analysis

Death data from the same period reveals an overall upward trend. Although not firmly correlated with the number of cases, death counts seem to peak around the middle of the year. From observing just a handful of deaths in 2010, the figures rise sharply to over 300 deaths monthly on several occasions in 2022 and 2023. The rising death rate amidst decreasing overall cases underscores a concerning development, possibly indicating a rise in the proportion of multi-drug resistant TB cases, inadequacies in treatment, or issues with case management. This upward death trend underscores the ongoing public health challenge of Tuberculosis in China.

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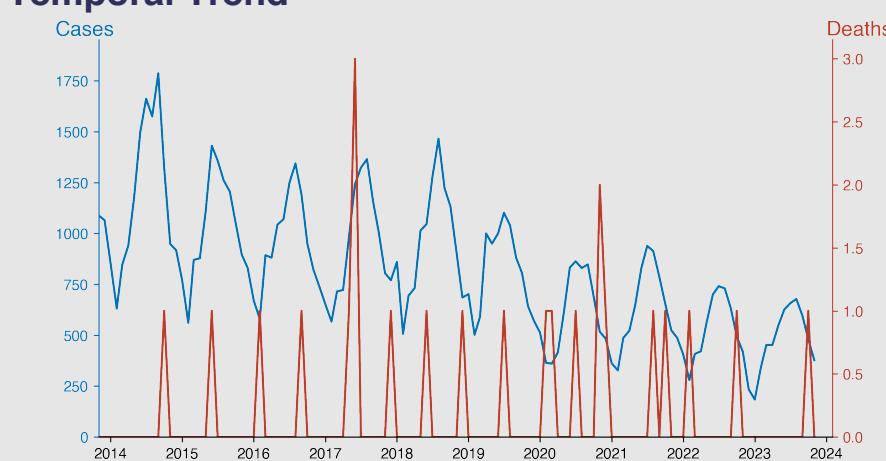
Typhoid fever and paratyphoid fever

November 2023

Introduction

Typhoid and paratyphoid fevers are bacterial infections resulting from *Salmonella typhi* and *Salmonella paratyphi*, respectively. Both diseases often manifest similar symptoms, including prolonged fever, malaise, and gastrointestinal complications. Primarily spread via contaminated food or water, these infections are common in areas with poor sanitation. Vaccination is available for typhoid, but is not completely effective, and no vaccine currently exists for paratyphoid. Antibiotics are essential for treatment, but the rise of drug-resistant strains remains a global concern.

Temporal Trend



Cases Analysis

The data from 2010 to 2023 shows a seasonal trend in the number of Typhoid and paratyphoid fever cases in mainland China. Every year, cases tend to rise around April or May, peak during the summer months (June to August), then gradually decrease during autumn and winter. Considering the entire observed period, there is a subtle perceptible decrease in recorded cases, indicating potential improvements in sanitary conditions, immunization coverage, contamination control, healthcare provision, or public health awareness.

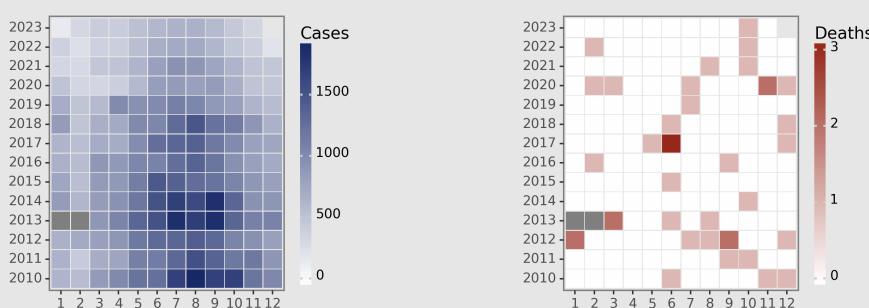
Highlights

- Over the decade from 2010-2020, there is an observable decrease in reportable cases of Typhoid and Paratyphoid fevers, suggesting successful control and prevention measures in Mainland China.
- Despite the overall trend, seasonal increases in infections are consistent, with cases peaking during summer months (June - August) each year, demonstrating a potential environmental or lifestyle component influencing transmission.
- The fatality rate remains relatively low throughout the years, and there is no evident trend towards increasing deaths despite occasional jumps, implying effective disease management.
- As of November 2023, the number of cases has been lowered to 377 with zero deaths, continuing the general diminishing trend established over past years.

Deaths Analysis

Deaths from Typhoid and paratyphoid fever in mainland China are notably low during the entire period. These minimal numbers, when compared to the total case count, reflect high survival rates, indicating the effectiveness of the medical interventions that are available in the region or a general decrease in the virulence of the pathogen. However, the sporadic nature of deaths throughout the years suggests that risk factors are still present, which could include conditions affecting patients' immunity or variations in the virulence of the disease-causing organisms.

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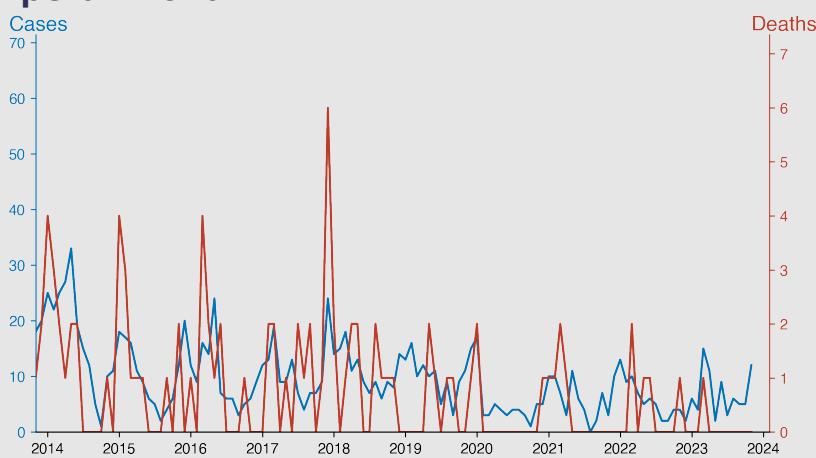
Meningococcal meningitis

November 2023

Introduction

Meningococcal meningitis is a severe bacterial infection of the thin layer covering the brain and spinal cord, caused by *Neisseria meningitidis*. It is potentially life-threatening, spreading through close contact, often among people living closely together, like in dormitories or military barracks. Symptoms include fever, headache, and stiff neck, with severe cases leading to septicemia. Vaccination is available and remains the most effective prevention method. Early diagnosis and treatment are critical to prevent complications or death.

Temporal Trend



Cases Analysis

The reported data illustrates a clear seasonality and a gradual declining trend of Meningococcal meningitis in mainland China over 2010-2023. Cases markedly peaked during the first quarter each year, typically March, suggesting an environmental or behavioral influence correlated with the disease's spread. Extensive public health measures appear to have reduced the numbers successfully, with significant drops from 2010's 420 cases to 66 in 2023. Further investigation is needed to identify specific actions leading to the decline in reported cases.

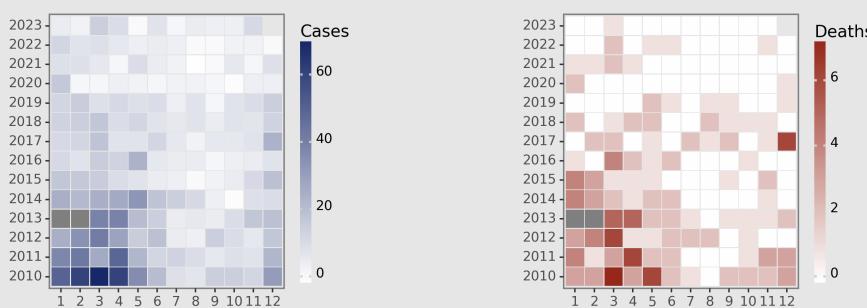
Highlights

- There is a clear trend of seasonality in the occurrence of Meningococcal meningitis, with higher incidence rates during the colder months from late winter to early spring.
- Over the past 13 years, there has been a general decrease in the number of Meningococcal meningitis cases and deaths reported in China.
- However, the case fatality rate (CFR) has remained relatively stable across the years with regular spikes—signifying an area of concern in terms of disease management.
- As of November 2023, the situation appears to be under control with 12 cases and no reported deaths for the month.

Deaths Analysis

Death outcomes display a similar seasonal pattern but with notable drops, possibly reflecting improved healthcare treatments, early detection, and vaccination campaigns. Deaths peaked around 6-7 per month in early years, dramatically reducing to single digits from 2016 and onwards. Despite seasonal fluctuations, data shows a decrease in mortality over time, with a clear shift towards zero monthly deaths in later years. This trend suggests increasing clinical success in handling infected cases. Further research is needed to identify potential death seasonality correlations and continued mortality reduction strategies.

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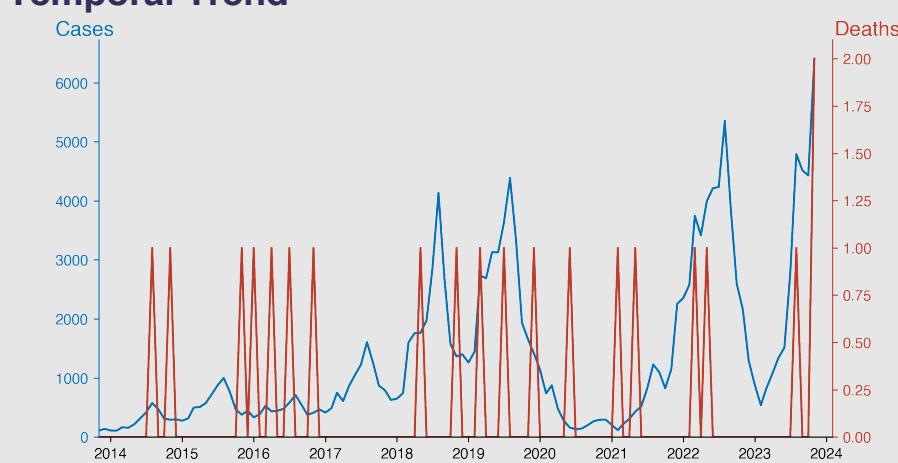
Pertussis

November 2023

Introduction

Pertussis, commonly known as whooping cough, is a highly contagious bacterial infection caused by *Bordetella pertussis*. It is characterized by severe coughing spells that can make it hard to breathe, hence the "whooping" sound when gasping for air. The disease primarily affects infants and young children and can be fatal, particularly in infants under 1 year of age. Vaccination is the most effective way of prevention. Despite being preventable, pertussis remains a significant public health concern globally.

Temporal Trend



Cases Analysis

The data exhibits an overall increasing trend in Pertussis cases reported in mainland China over the designated period (2010-2023). The cases have risen from modest numbers averaging 100-200 cases in the initial years to notable jumps to thousands per month in more recent periods with a peak reached in November 2023, reporting 6410 cases. Seasonally, noticeable spikes in reported cases typically coincide with summer months (June-August), which might possibly associate to climatic or behavioral factors affecting disease incidence.

Highlights

Increase in Pertussis Cases: There has been a clear trend of increasing Pertussis cases over the years. The total case count jumped from 88 in January 2010 to 6410 in November 2023.

2. Seasonal Spike: There is a noticeable seasonal trend, with case peaks usually in summer months, particularly between June and August.

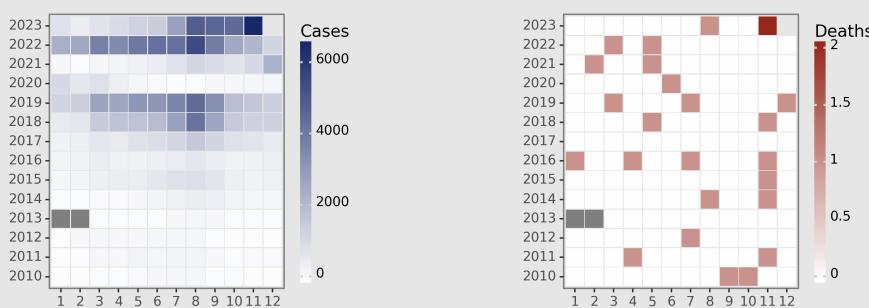
3. Mortality Rate: The mortality rate remains relatively low, but saw a slight increase in November 2023 with 2 reported deaths – the highest in the provided data set.

4. Recent surge: Recent data (2021 – 2023) shows a significant resurgence of the disease after a downturn in 2020. This may suggest the inadequacy of current disease control measures in place.

Deaths Analysis

The number of deaths associated with Pertussis in mainland China remains relatively low and scattered across the evaluated duration. The larger number of reported deaths does not necessarily align with the months of higher recorded case numbers, suggesting an irregular pattern. While the majority of months report no deaths, there is a notable rise in frequency of reported deaths starting from 2014. However, the death counts remained sporadic, with monthly deaths seldom exceeding a single case, but reaching a peak of two deaths in November 2023.

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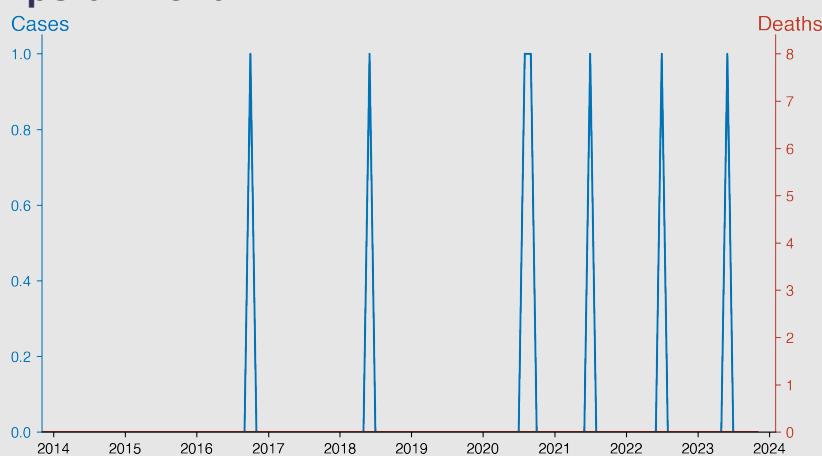
Diphtheria

November 2023

Introduction

Diphtheria is a contagious bacterial disease affecting the upper respiratory tract. It's caused by *Corynebacterium diphtheriae*, transmitted through respiratory droplets, close physical contact, and rarely, contaminated objects. Symptoms include sore throat, fever, and swollen glands, leading to a thick, gray membrane covering the throat and tonsils. Diphtheria can potentially lead to severe complications like myocarditis and neuritis. Vaccination forms a key part of the prevention strategy.

Temporal Trend



Cases Analysis

Over the 13-year span from 2010 to 2023, the records indicate a very low incidence of diphtheria in mainland China, with reported cases remaining at zero most months. However, there was a sporadic case reported in October 2011, another in October 2016, and single cases reported in June 2018, August and September of 2020, July 2021, and July 2022. The last case occurred in June 2023. This suggests a rare but persistent presence of the disease.

Highlights

Diphtheria incidence in mainland China from 2010 to 2023 has been fairly low, with isolated cases occurring intermittently.

2. There seems to be a pattern of a single case approximately every year from 2016, predominantly during the middle of the year from April to August. This indicates a minimal, potentially seasonal trend.

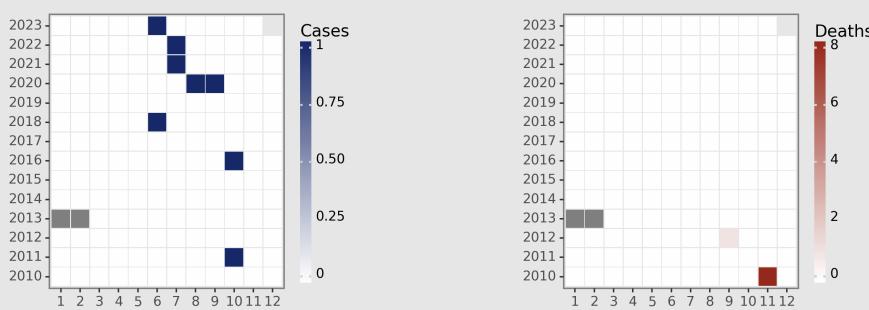
3. Despite the low incidence, there have been recorded deaths until 2012, though the death count since has been zero, suggesting improved healthcare, more effective treatments, or robust vaccination programs.

4. As of November 2023, there have been no new reported cases or deaths this year, showing consistent effectiveness of disease control measures.

Deaths Analysis

Reported data reveals few instances of fatal diphtheria in the same period. There were two recorded instances of fatalities, both without corresponding reported cases. The first occurred in November 2010 with 8 deaths and the second in September 2012 with a single fatality. Other than these instances, no other fatalities have been reported till the end of the data set in November 2023, which suggests effective management or possibly underreporting of fatal cases.

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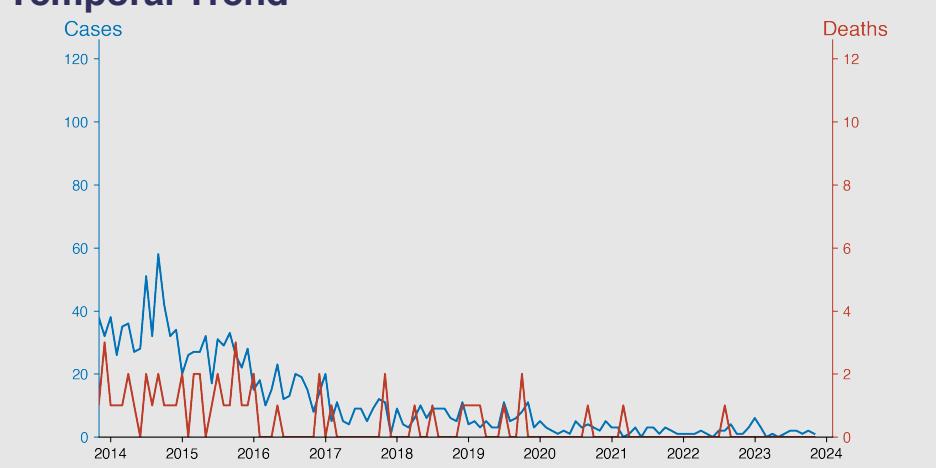
Neonatal tetanus

November 2023

Introduction

Neonatal tetanus is a severe bacterial infection affecting newborns, predominantly in areas with limited healthcare resources. It's caused by the bacterium Clostridium tetani, primarily introduced through non-sterile delivery and umbilical cord care practices. In untreated cases, the toxins produced by the bacteria lead to severe, life-threatening muscular rigidity and spasms. Neonatal tetanus is highly preventable through maternal immunization, hygienic birth practices, and proper cord care.

Temporal Trend



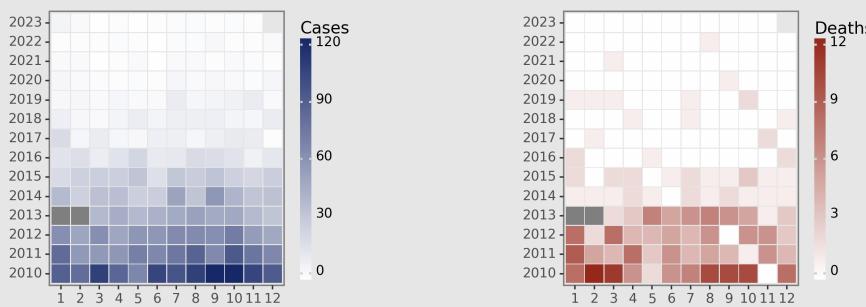
Cases Analysis

From 2010 to 2023, mainland China witnessed a noticeable decrease in Neonatal tetanus cases. A high of 120 cases in September and October of 2010 gradually fell to single-digit figures by 2023, suggesting effective control strategies. However, the trend highlights fluctuations, with certain periods of significant reductions, such as from 2010 to 2011 and then another steep drop after 2016, implying the influence of potential drivers like widespread immunization or health campaigns.

Highlights

- A significant decrease in both neonatal tetanus cases and deaths was observed from 2010-2023 in mainland China.
- From 89 cases in January 2010 to just 1 case in November 2023, this showcases successful public health interventions.
- Deaths due to neonatal tetanus also fell drastically, indicating improved clinical treatment and early disease management.
- Despite low cases, continuous vigilance, vaccination, and prompt treatment remain crucial to maintain these results.

Distribution



Deaths Analysis

The number of deaths due to Neonatal tetanus also showed a significant decline over time. While deaths were relatively consistent in the initial years, with a peak of 12 in February 2010, no fatalities were reported from 2017 onwards, hinting at improved medical treatment methods and effective interventions. Nonetheless, isolated instances of deaths reappeared in latter years, signalling the need for sustained attention despite lower incidences.

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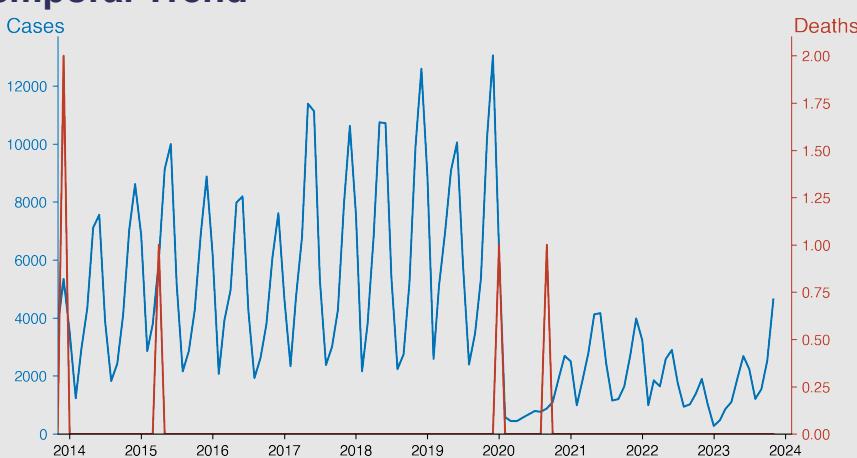
Scarlet fever

November 2023

Introduction

Scarlet fever, also known as scarlatina, is an infectious disease caused by the bacterium *Streptococcus pyogenes*. It manifests as a distinctive pink-red rash, high temperature, sore throat, and a 'strawberry' textured tongue. Historically common in children, it's treatable with antibiotics today. The disease can spread via airborne droplets when the infected person coughs or sneezes, or through touching contaminated items. Complications may occur if left untreated, making early diagnosis essential.

Temporal Trend



Cases Analysis

Scarlet fever cases in mainland China show seasonal increase; notably during April through June and November through December. Year over year, an increase can be observed, peaking in December 2019 at 13053 cases. Shockingly, cases significantly dropped in 2020 likely due to stringent measures against COVID-19 reducing scarlet fever's spread. The curve starts to recover in 2021 with sporadic monthly cases. A significant drop is seen in January 2023, but the cases load ascends again through the subsequent months.

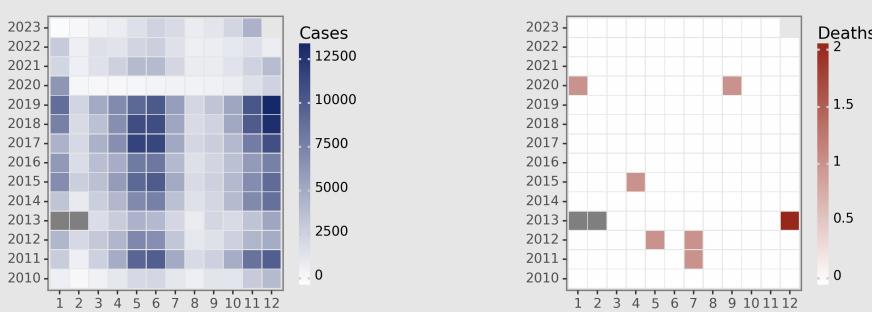
Highlights

- Seasonal Variation: Scarlet fever appears to follow a yearly cyclical pattern with peaks typically occurring from May to July and heightened incidence reported during late autumn and early winter.
- Increasing Trend: The total number of reported cases escalated from 2010 to 2019. However, there's been an abrupt decline since 2020, possibly due to global lockdown measures.
- Low Fatality Rate: Despite the notable increase in cases over the years, the death count remains relatively low, suggesting a low fatality rate.
- Current Situation: As of November 2023, a rise in cases is observed following the seasonal trend, though it's still much lower than the peak numbers reported pre-2020.

Deaths Analysis

Despite sharp fluctuations in case numbers, the death toll remains almost consistently low. From 2010 through 2023, there are only 6 recorded deaths. This suggests effective management and treatment of scarlet fever in China, considering the contagion's potential severity. The occasional upticks in death, for instance in July 2012 and December 2013, should be regarded as rare, sporadic events in the context of the general trend of effective control and management of fatalities due to scarlet fever.

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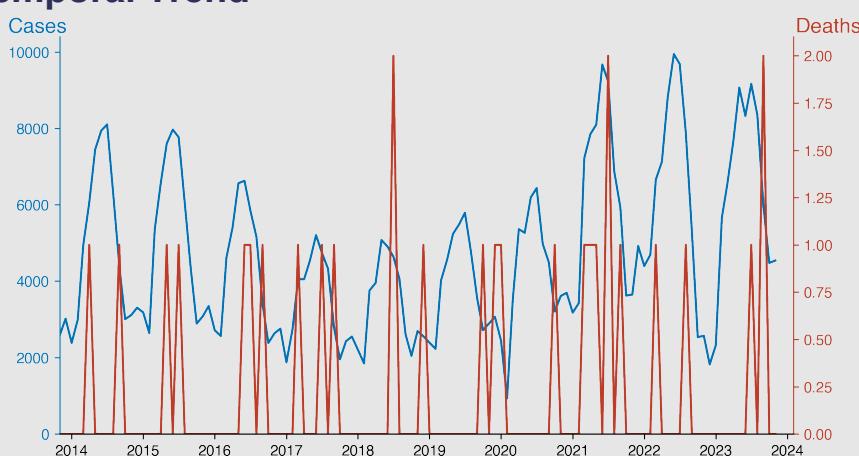
Brucellosis

November 2023

Introduction

Brucellosis is a bacterial infection acquired through contact with animals or animal products contaminated with the Brucella bacteria. Humans can contract the disease by consuming untreated milk or undercooked meat, or through direct contact with infected animals. Symptoms range from fever, fatigue, and sweating, to more serious complications affecting the heart or central nervous system. It's largely found in rural, agricultural regions. Treatment typically involves prolonged antibiotic therapy.

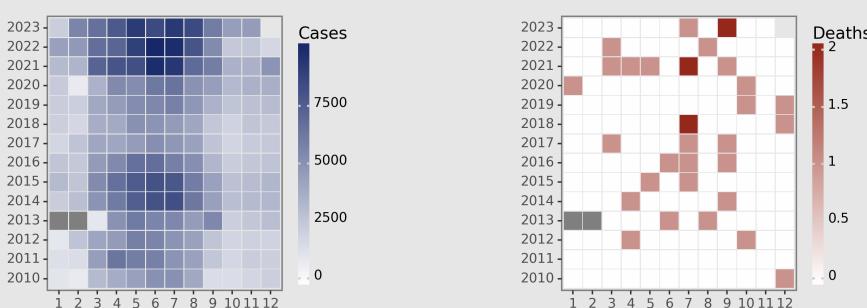
Temporal Trend



Cases Analysis

The reported dataset for Brucellosis in mainland China from 2010 to 2023 indicates seasonal cyclic trends, with cases peaking during the spring and summer months, reflecting the zoonotic nature of the disease. From 2010, there has been an overall increasing trend in Brucellosis cases, culminating in 2022's peak of 9943 in June. Thereafter, reported cases declined sharply, reaching a low of 1820 in December 2022. Despite this, the numbers have shown a steady rebound during the early months of 2023.

Distribution



Highlights

- There has been a notable increase in brucellosis cases over the observed period, with particularly high incidence in the warm months (May to August).
- Despite fluctuations, the number of reported cases in recent years, especially from 2016 onward, shows a noticeably upward trend, suggesting worsening circumstances.
- The mortality rate due to brucellosis remains low, with only sporadic cases of death reported annually. However, the recent occurrences of fatalities in September 2023 indicates a potentially concerning development.
- As of November 2023, the disease situation remains high with 4540 cases reported, indicating ongoing transmission and need for brucellosis control measures.

Deaths Analysis

Despite the increasing number of cases over the 14-year period, Brucellosis-related death rates remained relatively low. The data suggests sporadic fatalities, usually not exceeding 1-2 deaths per month. However, there is a noticeable increase in fatalities in recent years, particularly in months with higher case numbers such as July 2023, indicating a possible parallel but not directly proportional relationship between the number of cases and deaths.

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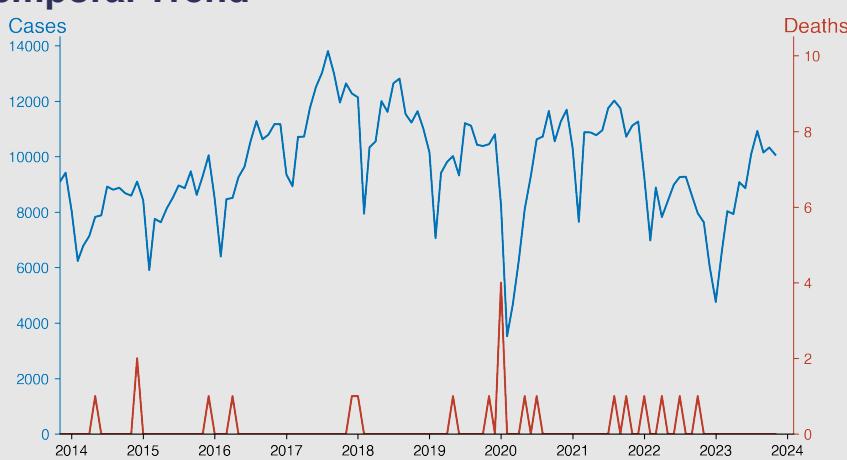
Gonorrhea

November 2023

Introduction

Gonorrhea is a sexually transmitted infection (STI) caused by the bacterium *Neisseria gonorrhoeae*. The disease can infect both men and women, impacting mucous membranes such as the throat, genitals or rectum. Symptoms may include painful urination, discharge, or the absence of symptoms altogether. Transmission occurs primarily through sexual contact. If untreated, it can lead to severe health complications, including infertility. Worldwide, over 87 million new cases are estimated each year.

Temporal Trend



Cases Analysis

The cases of Gonorrhea in mainland China demonstrate a noticeable fluctuating pattern over the years, with the counts experiencing seasonal variations. The months with typically higher case counts are June to August. Moreover, there is a discernible downward trend in cases in early 2020, likely associated with enhanced preventive measures during the initial stages of the COVID-19 pandemic. Overall, a general trend from 2010 to 2023 illustrates an increase in reported cases, indicating a possible rise in transmission or improvements in detection and reporting over time.

Highlights

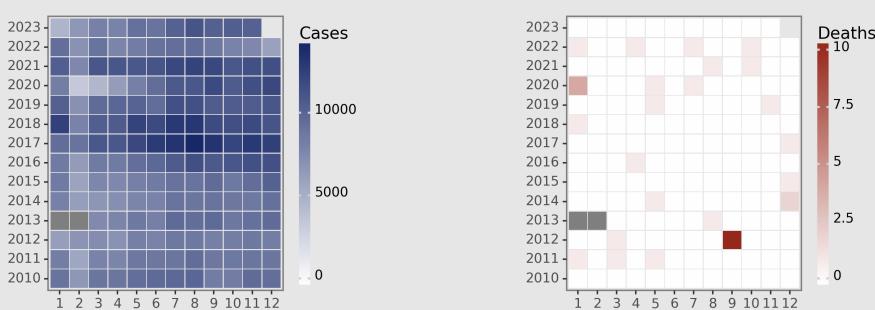
Throughout the years, there is a consistent rise in the number of Gonorrhea cases with some fluctuations. From 8865 cases in January 2010 to an overall increase reaching 10065 cases in November 2023, depicting a slow upward trend over 13 years.

2. Deaths related to Gonorrhea are relatively low and sporadic over the years and no consistent pattern can be observed. Notably, the record number of deaths was four in January 2020, otherwise the number usually did not exceed one.
3. There is a significant drop in cases in the early part of 2020, potentially linked with the COVID-19 pandemic and subsequent restriction measures leading to a decrease interaction and transmission opportunities.
4. After the dip in 2020, there's an increase trend resuming until November 2023, although not reaching the pre-pandemic peaks. Future monitoring will determine if

Deaths Analysis

Despite the fluctuating case count, deaths due to Gonorrhea remain consistently low, with many months recording no fatalities. However, notable exceptions appear in September 2012, January 2023, and a few isolated instances throughout the period. These fatalities might be linked to underlying health complications or limited access to health services during those months. It's plausible that the introduction of more effective treatments and prevention strategies over the years has helped in keeping the death count low.

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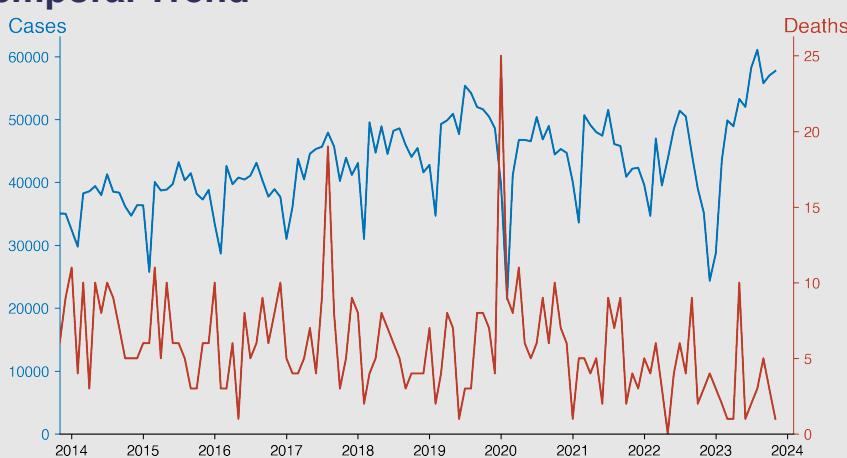
Syphilis

November 2023

Introduction

Syphilis is a sexually transmitted bacterial infection caused by *Treponema pallidum*. Initial symptoms include small, painless sores or a rash, often unnoticed due to their locations. As the disease progresses, it can cause complications like organ damage or neurological issues. It's often divided into stages: primary, secondary, latent, and tertiary, each with different symptoms. Early stages are highly contagious, but it is curable with prompt antibiotic treatment. Transmission primarily occurs through sexual contact, but can also be passed from mother to child during pregnancy.

Temporal Trend



Highlights

Syphilis cases in mainland China have been rising overall from 2010 to 2023, with fluctuations. The case count reached its peak in November 2023 with a record 57,719 new cases.

- Despite the increase in cases, the death count has remained relatively low and steady, ranging from 0 to 25 per month over the 13-year period. This could be the result of improved disease management and treatment.
- Cases appear to peak annually during the summer months of June-August, suggesting seasonality in syphilis transmission.
- Comparing the start and end data points (January 2010 to November 2023), there is more than a double increase in the case count, signifying a high disease burden.

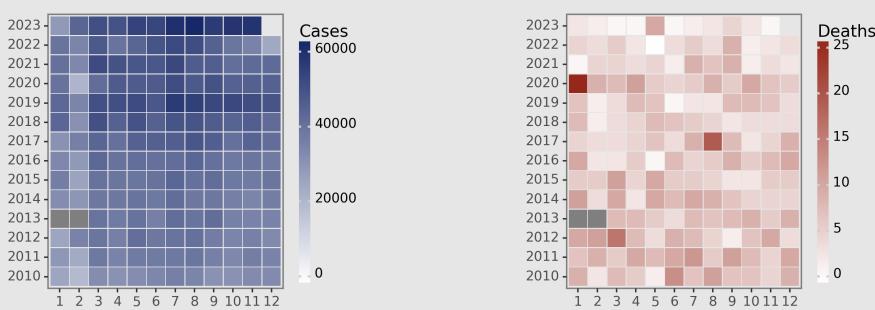
Cases Analysis

The available data for Syphilis cases in mainland China suggests an overall upward trend, with a peak in August 2023 at 61,068 cases. The lowest recorded cases occurred in February 2010 and December 2022 at 19,724 and 24,367 cases respectively. A pattern emerges, where an escalation in cases typically begins in February, reaching its peak around mid-year, and then declines towards the year-end. However, the data also shows occasional fluctuations, indicating potential variations due to certain environmental or behavioral factors.

Deaths Analysis

With respect to death rate, the data depicts a relatively low mortality rate over the years, with a maximum of 25 deaths in January 2020. The lowest recorded value was none in May 2022. There doesn't seem to be a clear pattern or seasonality in the death counts. This could signify effective treatment measures or possibly underreporting of mortality figures. The peak value in 2020 could point towards possible stressors like the COVID-19 pandemic impacting existing healthcare services. Overall, the consistently low death count suggests a successful management of severe cases in mainland China.

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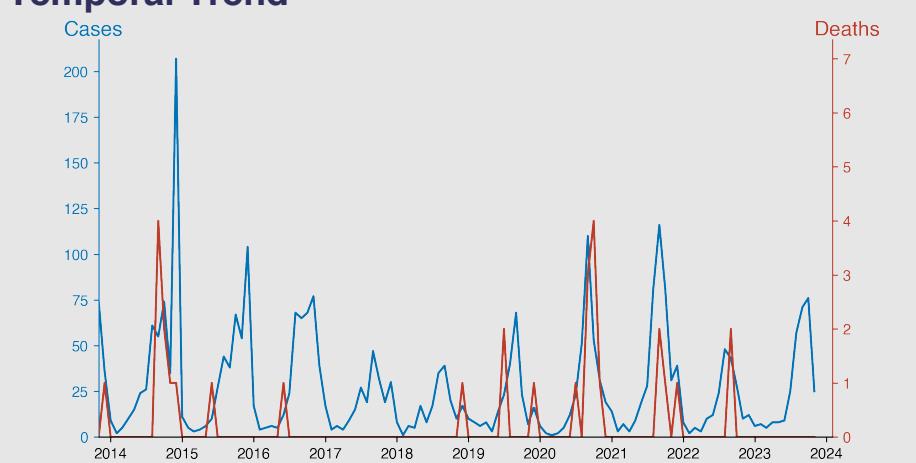
Leptospirosis

November 2023

Introduction

Leptospirosis is a bacterial zoonotic disease caused by the bacterium Leptospira. It primarily affects animals, but humans can contract the disease through contact with urine from infected animals or a contaminated environment. The infection may result in mild flu-like symptoms, severe symptoms like kidney damage, liver failure, or even death. The prevalence of Leptospirosis varies globally, with frequent occurrences in tropical and subtropical regions due to favorable conditions for Leptospira survival.

Temporal Trend



Cases Analysis

Leptospirosis case data from mainland China shows distinct seasonality, with cases peaking annually during the late Summer and Autumn months (August to October), indicating a potential linkage with agricultural activities and/or favorable environmental conditions. From 2010, while the overall cases fluctuated year by year, there seems to be a decreasing trend towards 2023, showing notable strides in public health intervention. Notable spikes occurred in 2010 and 2012 - further investigation is warranted to understand these anomalies.

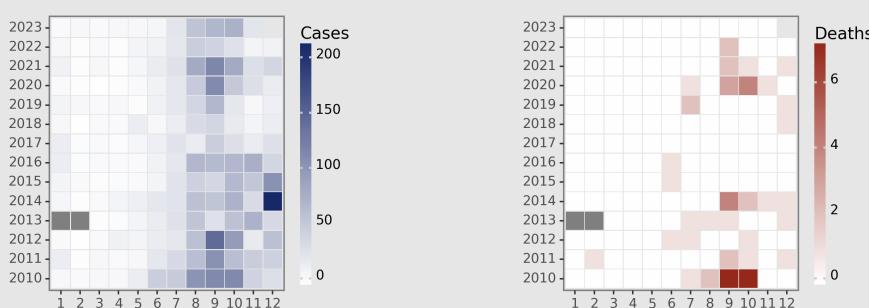
Highlights

- The yearly incidence of Leptospirosis shows a seasonal pattern with a spike in cases during the summer months and early autumn (June to October).
- The death count remained relatively low over the years with an occasional increase during autumn months, suggesting that while more people contract the disease during this period, the resulting mortality rate is relatively marginal.
- In recent years (2021-2023), there is a slightly increasing trend in Leptospirosis cases, though the number of deaths has remained steady.
- As of November 2023, the situation remains consistent with previous years, with a decline in cases expected in the following months due to seasonal trends.

Deaths Analysis

Death rates have remained consistently low, the highest number occurring in September 2020 with seven fatalities. There appears to be a loose correlation between case numbers and death figures, with the annual pattern of potential fatalities also following the late Summer to Autumn prevalence. This suggests efficient medical intervention. However, the death occurrence in months like February 2011, despite lower case incidents, indicates the disease's unpredictability and the need for continued surveillance and healthcare resource allocation.

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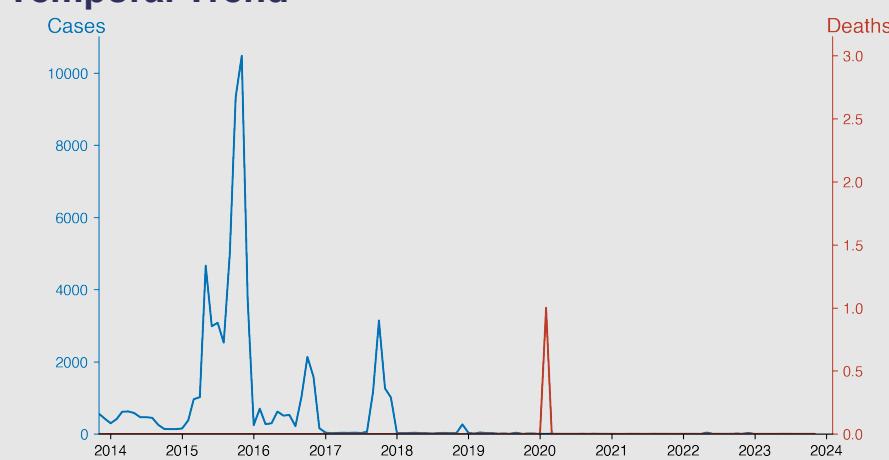
Schistosomiasis

November 2023

Introduction

Schistosomiasis, also termed "snail fever," is a disease caused by parasitic flatworms of the Schistosoma species. Transmitted to humans through water contaminated with larvae, these parasites invade the circulatory system, potentially leading to liver, kidney, and bladder damage or, in severe cases, death. With effective treatment available, this ailment primarily plagues impoverished communities lacking clean water and sanitation. The World Health Organization estimates 200 million people are infected, primarily in Africa, making it the second most common parasitic disease after malaria.

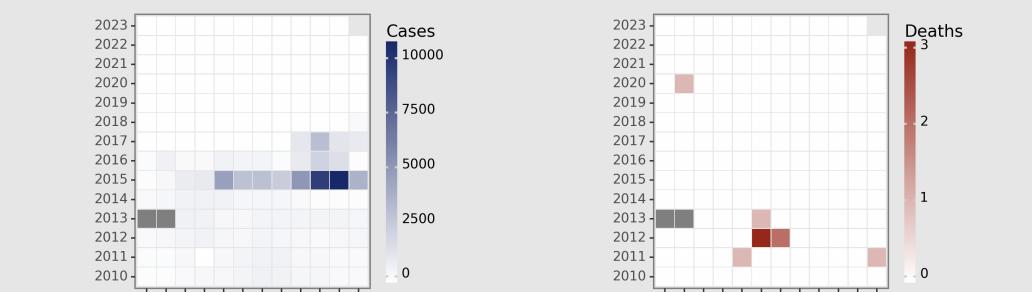
Temporal Trend



Cases Analysis

The data suggests a declining trend in schistosomiasis cases in mainland China over the past decade. Particularly notable is the dramatic decrease from 2015 onwards, the year with the highest reported cases (10481 in November), leading to much lower averages in subsequent years. Despite occasional spikes, predominantly observed in autumn months, data in later years show an average monthly figure often below 20. Overall, this indicates a significant improvement in the control of schistosomiasis, possibly due to enhanced disease surveillance, increased public awareness, and preventative health measures.

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Highlights

- Significant Decrease in Cases: From 2010-2023, there has been a considerable reduction in Schistosomiasis cases, peaking in 2015 with 10481 cases in November then decreasing to just 3 cases by November 2023.
- Mortality rate remains minimal: Throughout the covered period, there was a relatively low mortality rate, with only a few reported deaths.
- Seasonal Trend: There's a tendency for cases to spike mid-year (June and July) and near the end of each year (October and November), indicating potential seasonality.
- Increased Efforts in Disease Control: The drastic reduction suggests the implementation of effective disease control strategies post-2015.

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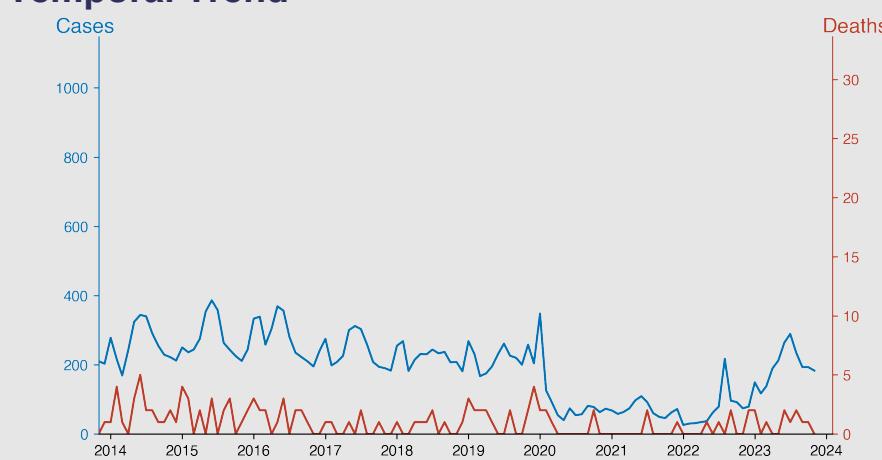
Malaria

November 2023

Introduction

Malaria is a life-threatening disease caused by parasites transmitted to people through bites of infected female Anopheles mosquitoes. Predominantly found in tropical and subtropical climates, it poses a significant health risk, causing symptoms like fever, chills, and flu-like illness. Five species of Plasmodium parasites cause malaria in humans, with *Plasmodium falciparum* being the deadliest. Despite worldwide efforts, the World Health Organization reports hundreds of thousands of malaria-related deaths annually, primarily among children in Sub-Saharan Africa. Effective control measures include rapid diagnosis and treatment, and preventative measures such as

Temporal Trend



Cases Analysis

The malaria cases in mainland China display a general pattern of decline since 2010, with some seasonal variation. There is an apparent surge in cases during the middle of each year, typically peaking around June or July. These peaks gradually lessen over the years, although the recent oscillatory increase in the mid-year cases since 2020 suggests that continued vigilance is required. Despite slight upticks, the general trajectory suggests successful interventions and robust public health measures.

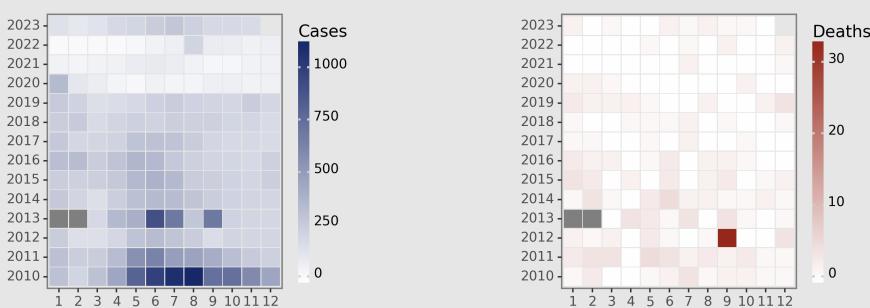
Highlights

- Malaria cases have shown a significant decrease from 2010 to 2023. The highest number of cases reported was in 2010 (10,938) and the lowest in 2022 (847).
- A seasonal pattern is observable, with the peak number of cases usually around May-July, and then a gradual decrease until the end of each year.
- The number of deaths due to Malaria remains relatively low throughout, although inconsistency in the counts can be observed. The highest fatality was in September 2012 with 32 deaths.
- As of November 2023, the situation seems controlled with 183 cases and no deaths. However, this is a slight increase from the 74 cases in November 2022, indicating a potential increase in transmission.

Deaths Analysis

The number of deaths due to malaria throughout 2010-2023 remains relatively low, indicating efficient clinical management. There is a noticeable peak of 32 deaths in September 2012, the underlying cause of this anomaly would need further investigation. Overall, the number of deaths due to malaria has remained consistently low since 2014, generally not exceeding five deaths per month. This low mortality rate, despite slight variations in case prevalence, implies effective treatment strategies and improved healthcare access, even in instances of increased malaria transmission.

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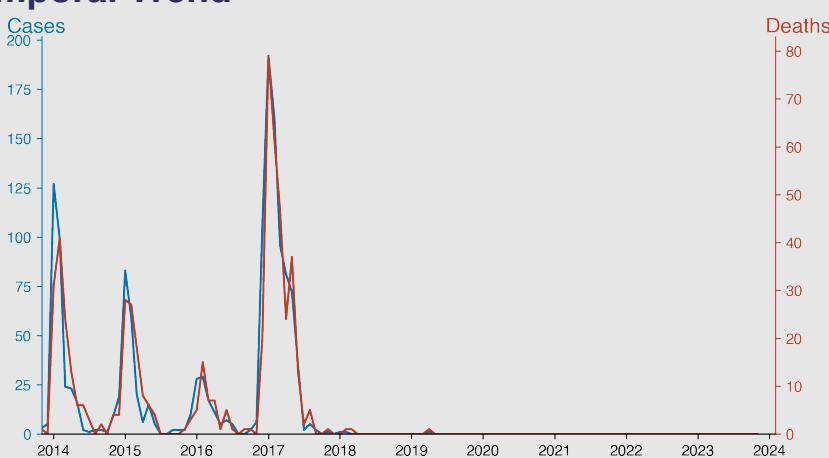
Human infection with H7N9 virus

November 2023

Introduction

The H7N9 virus is a strain of influenza found mostly in birds. It first emerged in China in 2013, causing severe respiratory illness in humans. Through exposure to infected poultry or contaminated environments, H7N9 can occasionally infect humans and potentially cause serious disease, including pneumonia and acute respiratory distress syndrome. It is important to note that sustained human-to-human transmission of H7N9 has not yet been reported. International vigilance and cooperation remain crucial due to the virus's pandemic potential.

Temporal Trend



Cases Analysis

From late 2013 until 2023, the data exhibits distinct fluctuations of human H7N9 infections in mainland China. High levels of cases were reported particularly in early 2014 and 2017, with sharp spikes observed in January of those years. The highest number of reported cases occurred in January 2017 (192 cases). Overall, the trend indicates a decrease in H7N9 cases from mid-2017, with no reported cases from July 2018 through 2023.

Highlights

High infection rate in 2014 and 2017: H7N9 virus saw two major waves in mainland China, peaking during the early months of 2014 and 2017, registering the highest numbers in cases and deaths.

2. Diminishing trend after 2017: Notably, after the last significant wave in 2017, the infection trends sharply down, with minimal cases, and eventually zero, observed since late 2018.

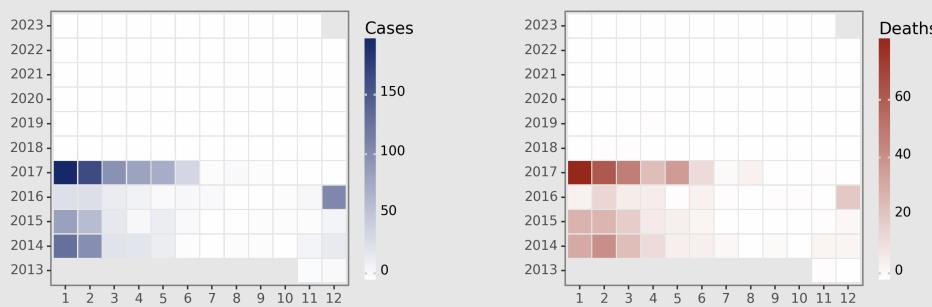
3. No new cases or deaths since 2019: The data reveal a stable state with no reported cases or deaths due to the H7N9 virus in mainland China from 2019 until the most recent record in November 2023.

4. High fatality rate during outbreaks: From the data, the fatality rate during major outbreaks was considerable, hinting at the high potential lethality of the virus.

Deaths Analysis

The number of recorded deaths due to H7N9 virus also shows a peak in early 2014 and 2017, with the highest fatalities reported in January and February of 2017, accounting for 79 and 61 deaths, respectively. However, the trend from mid-2017 suggests a significant reduction in H7N9-related mortality, similar to the infection rate, with no reported deaths from July 2018 onward. The overall data suggests that mortality fluctuated in synchrony with reported H7N9 cases over the years.

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Monkey pox

November 2023

Introduction

Monkeypox is a rare viral zoonotic disease that occurs mainly in Central and West Africa. It's caused by Monkeypox virus, a member of the orthopoxvirus genus that includes the variola virus (the cause of smallpox). Usually contracted from animals, it manifests symptoms similar to but milder than smallpox. These include fever, headache, muscle pains, and characteristic rashes. Human-to-human transmission can occur, though it's relatively limited. There's no specific treatment, but a smallpox vaccine can provide protection against Monkeypox.

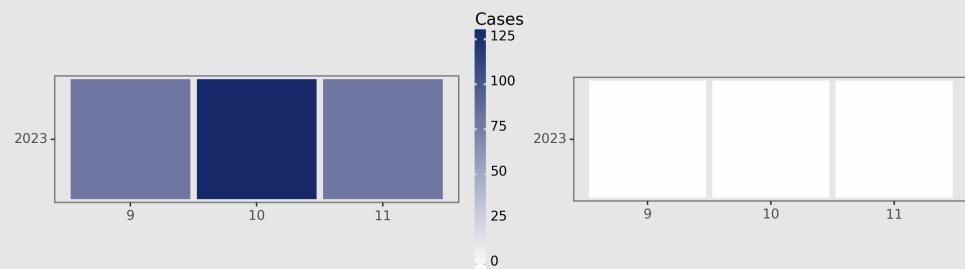
Temporal Trend



Cases Analysis

In recent months, Monkey pox has shown a fluctuating presence in mainland China, with 80 cases observed in September 2023, a notable increment to 127 in October, and a significant drop back to 80 in November. This suggests shifts in contagion patterns, potentially associated with virus transmission factors and preventative measures. This needs further investigation to ascertain whether the peak in October represents an isolated event or presages periodic recurrences.

Distribution



Highlights

- Overall stable case rate: Initial signs of stability are observed in the Monkeypox situation within mainland China, with an equal number of 80 cases reported in September and November 2023.
- Surge in October: A notable surge in infection to 127 cases were recorded in October 2023, a deviation from the stable pattern seen in surrounding months.
- No recorded fatalities: Despite the fluctuating case numbers, the fatalities related to Monkeypox remained at zero through this entire duration, indicating a potentially low fatality rate.
- Ongoing monitoring required: Given the recent surge in October, ongoing surveillance will be paramount to prevent possible future outbreaks and ensure public health.

Deaths Analysis

Despite the obvious oscillation in case numbers, the death count stands firmly at zero for the duration of this period. This indicates that, while the Monkey pox transmission rate fluctuates, morbidity appears non-life-threatening, potentially due to early detection, effective treatments, or a less virulent strain of the virus. Efforts to maintain these low fatality rates should be prioritized along with the focus on containing the spread.

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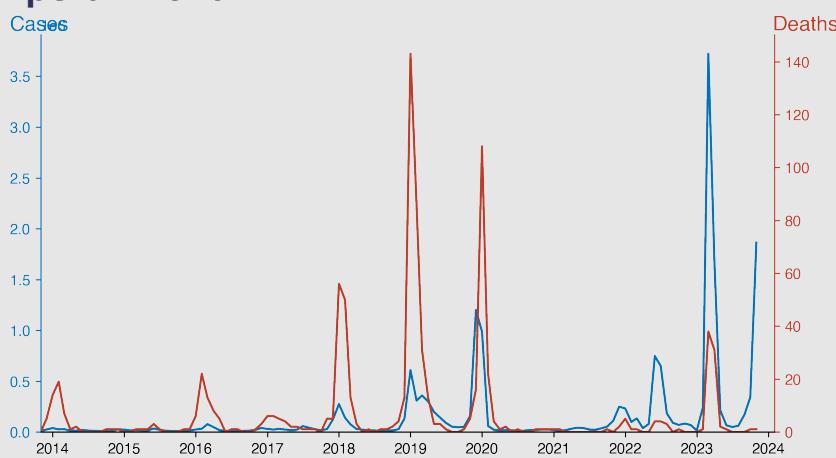
Influenza

November 2023

Introduction

Influenza, commonly known as the flu, is a highly contagious respiratory illness caused by influenza viruses. Spreading via droplets when infected people cough, sneeze, or talk, it manifests symptoms such as fever, chills, muscle aches, cough, congestion, runny nose, headaches, and fatigue. While it primarily affects the nose, throat, and lungs, severe cases can lead to complications like pneumonia and death. Regular vaccination is the most effective way to prevent influenza.

Temporal Trend



Cases Analysis

Influenza was a recurring health issue in mainland China from 2010 to 2023. There was an upward trend in the reported cases with significant peaks occurring during typically colder months (January, February, and December). This was especially noticeable in years like 2018, 2019, and 2023, which indicates a seasonal pattern of the virus. There was an unusual spike in cases in March 2023 with a sudden, dramatic increase to over 3.7 million reported cases, nearly 20x the peak seen in December 2019.

Highlights

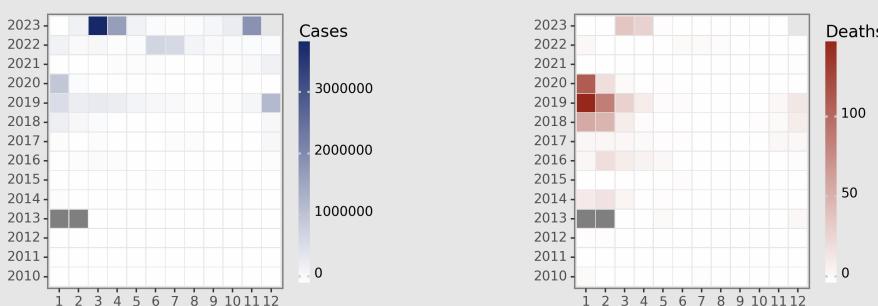
There is a substantial increase in the number of influenza cases and deaths in mainland China from 2010 to 2023, with a sharp escalation in the year 2019.

- A clear seasonal trend is observed over the years; case counts often rise in winter months (December and January), slightly drop in spring, and reach the lowest during summer.
- The years 2019, 2020 and 2023 saw exceptionally high departure from the usual flu season (winter), with an extreme peak in March 2023.
- Despite the increase in cases, the number of deaths remains low, indicating potential improvements in healthcare response or low virulence of the circulating strains.

Deaths Analysis

Although the number of reported cases significantly increased over the years, the number of deaths remained relatively low. Despite the occasional increase during the colder months, deaths plateaued at a very small percentage of cases. The highest number of deaths was recorded in January 2019, with 143 deaths despite over 608,000 reported cases, which reconfirms the disparity. There was an exception in March 2023, where despite an exponential increase in cases, the deaths remained relatively controlled.

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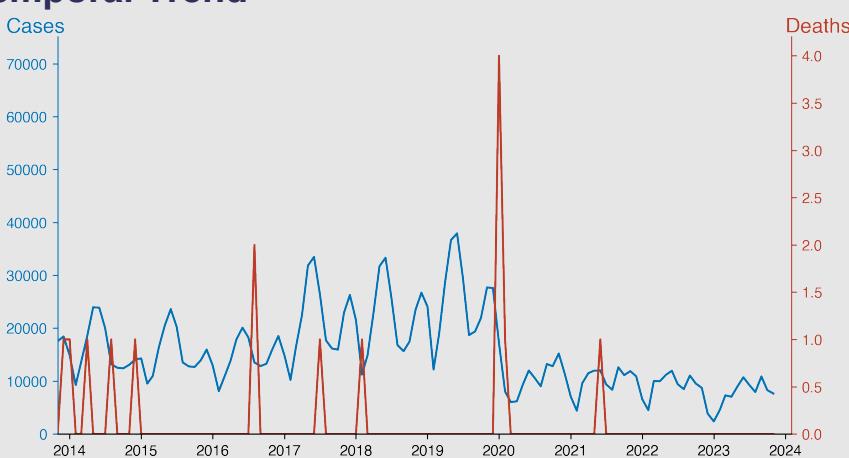
Mumps

November 2023

Introduction

Mumps is a contagious viral disease characterized by fever, headaches, muscle aches, fatigue, and swelling of the salivary glands, notably the parotid glands. It primarily affects unvaccinated individuals and can spread through respiratory droplets or direct contact. Mumps was common globally until the MMR (measles, mumps, and rubella) vaccine greatly reduced its prevalence. In rare cases, serious complications such as meningitis, encephalitis, and deafness can occur. Vaccination is the most effective preventive measure against mumps.

Temporal Trend



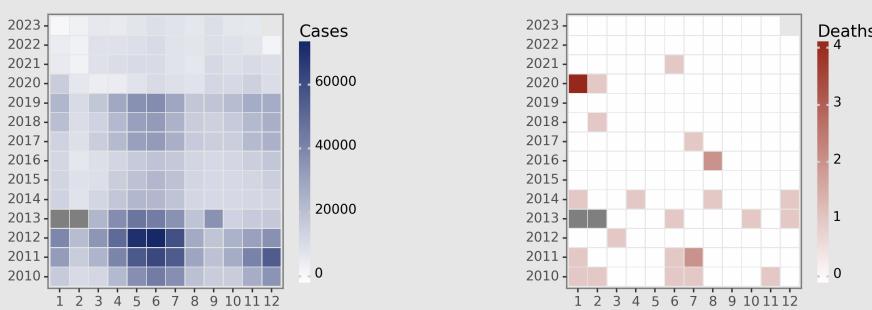
Cases Analysis

The overall trend of mumps cases in mainland China is mixed, with clear cyclical patterns and spikes, mostly recurring around May to June each year. The highest reported number of cases was in 2012 with a peak of 71,606 cases in June, which suggests a seasonal pattern. It's also of note that there's a gradual reduction in the reported cases from 2010, possibly due to effective vaccination programs or herd immunity - with slight exceptions in 2018 and 2019. The trend further decreases in the most recent years, possibly also impacted by coronavirus pandemic measures restraining the mumps spread.

Highlights

1. Drastic Drop in Cases: Since the peak in 2012, Mumps cases have seen a steady decline, most notably after 2019. The drop from 27,704 cases in November 2019 to 7642 in November 2023 represents a substantial decrease over time.
2. Low Fatality: Across the years, Mumps has a low fatality rate with only sporadic death events, demonstrating the typically non-lethal nature of the disease.
3. Seasonal Trends: There is a clear cyclical annual pattern with cases typically showing a peak during May-June and again lower numbers in the latter part of the year, indicating a strong seasonal influence on the disease occurrence.
4. Rapid decrease in 2020: Cases plummeted drastically from January 2020 onwards, potentially reflecting the impact of the COVID-19 pandemic, changes in reporting, or other unknown factors.

Distribution



Deaths Analysis

Analysis of the death data shows that fatalities due to mumps in mainland China are extremely rare despite the high incidence of cases. With only occasional occurrences, the total recorded number of deaths throughout these years remain exceedingly low with the highest in January 2020 (4 deaths). This rare mortality indicates effective clinical management of the disease and potentially high vaccination coverage. The absence of deaths in many months, even with high case count, points to the generally non-lethal nature of mumps and effective public health measures.

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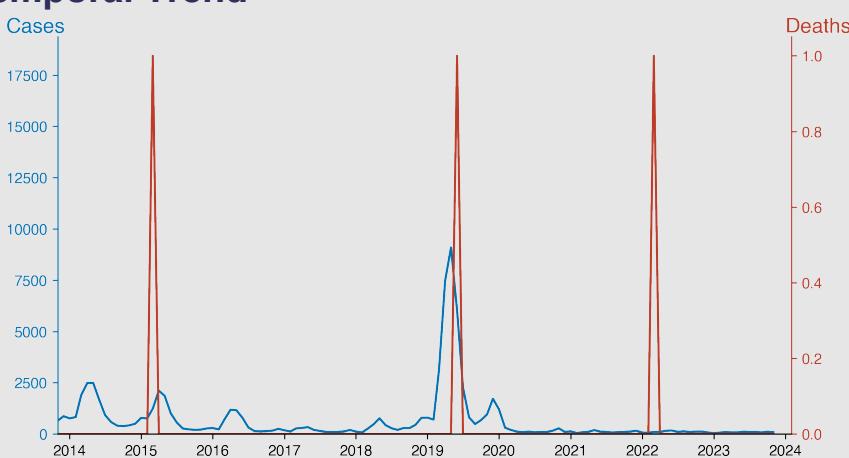
Rubella

November 2023

Introduction

Rubella, also known as German Measles, is a contagious disease caused by the Rubella virus. It often causes mild symptoms such as fever, sore throat, and a characteristic red rash. While generally mild in children, Rubella can cause severe complications in pregnant women, potentially leading to birth defects or miscarriage. Vaccination is the primary preventive measure. The disease transmission primarily occurs through direct contact with the respiratory secretions of an infected individual.

Temporal Trend



Cases Analysis

Rubella cases in mainland China show a consistent seasonal cycle from 2010 to 2023, with a peak in the spring months (April-May) and a downward trend through the autumn and winter months. Positively, the overall incidence trend of Rubella decreases, from reaching tens of thousands in 2010 and 2011, for instance, to low hundreds by 2023. From 2016, there is a significant decrease in the number of reported Rubella cases, suggesting that the situation has been steadily improving due to likely advancements in prevention, awareness, and healthcare practices.

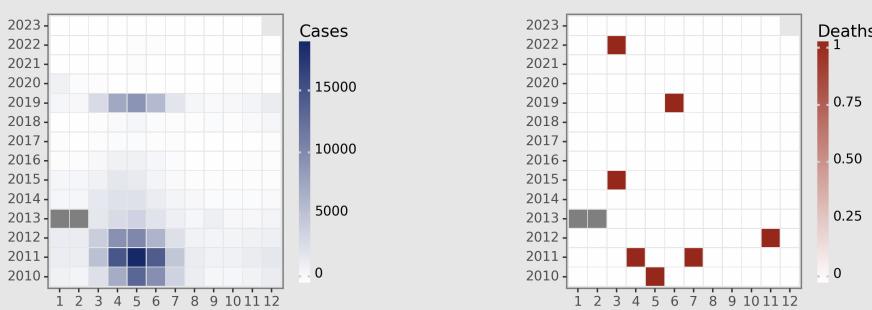
Highlights

- Significant overall decrease in cases: Cases of Rubella in mainland China saw a substantial decrease over the years from a peak of over 18,000 in May 2011, dropping to fewer than 100 by November 2023.
- Seasonal trend remains evident: Despite the overall decrease, there appears to be a seasonal trend with case numbers typically peaking around April to June each year.
- Almost nonexistent fatality: Rubella fatality remained virtually nonexistent, with just four recorded deaths over the 13-year period.
- Continued vigilance suggested: As of November 2023, despite a massive reduction, the persistent low-level case numbers imply a need for continued surveillance and prevention measures.

Deaths Analysis

Mortality analysis shows a very low fatality rate throughout the years with only eight fatalities reported between 2010 and 2023. The sporadic deaths do not show a clear pattern or happen during peak infection periods, suggesting that fatalities may be incident-specific rather than a systemic issue. These statistics suggest that the health system has been successful in handling the disease, though continuous monitoring and vaccine deployment should be maintained for Rubella given its potential severe complications in pregnant women.

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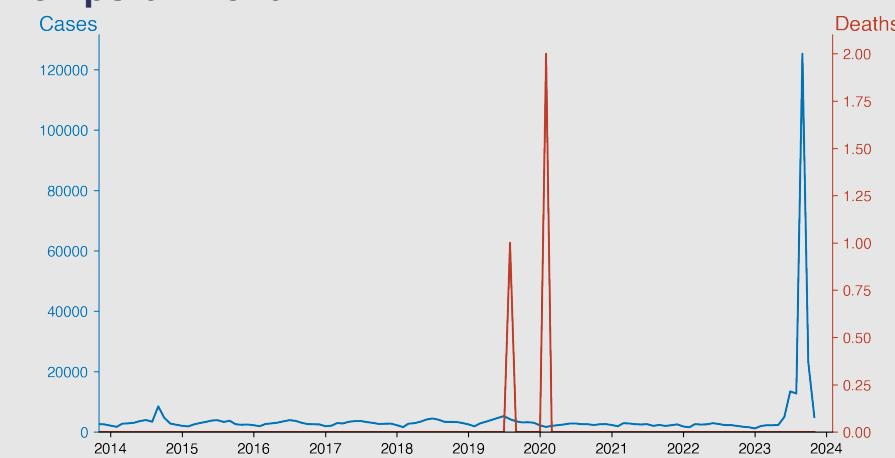
Acute hemorrhagic conjunctivitis

November 2023

Introduction

Acute Hemorrhagic Conjunctivitis (AHC) is a highly contagious, rapidly spreading viral eye disease. It primarily causes sudden onset of redness, tearing, and swelling in one or both eyes, often accompanied by eye pain and blurred vision. Although alarming due to its severe appearance, AHC typically resolves without treatment in one to two weeks. The disease is mainly associated with two types of enteroviruses: Enterovirus 70 and Coxsackievirus A24. AHC outbreaks have occurred worldwide, mostly in tropical and subtropical regions.

Temporal Trend



Cases Analysis

The data indicates an outbreak of Acute Hemorrhagic Conjunctivitis (AHC) in mainland China from 2010 to 2023. Generally pattern reveals a cyclical rise and fall of AHC cases along the years, starting from a lower point at the beginning of the year and escalating around the summertime, with a significant peak in September. The most prominent spikes in cases were seen in September in 2010 (48,658 cases) and 2023 (125,264 cases) indicating severe outbreaks. All other years, even those without a such large spikes, maintain a consistent episodic increase in summer months.

Highlights

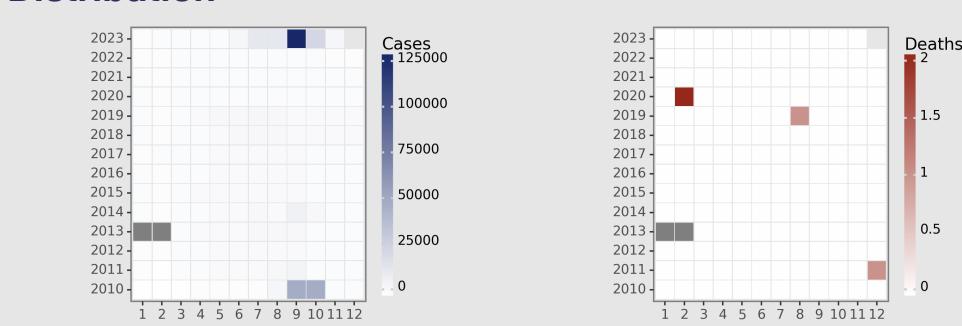
There has been a sudden surge in the number of Acute hemorrhagic conjunctivitis cases in mainland China, particularly in September 2023, with a total of 125,264 cases - a significant increase from the previous months.

- Despite the fluctuations over the years, the general trend of case numbers has been downward since 2010 until 2023, when it sees a sharp rise.
- The disease has a striking seasonality, with the highest case numbers consistently occurring from July to October.
- The fatality rate is extremely low, with only a few cases of deaths reported from 2011-2020. However, no deaths have been recorded as of November 2023.

Deaths Analysis

Comparatively, the fatality rate documented in the data is very low, with only three recorded deaths due to AHC from 2010 to 2023, occurring in December 2011, August 2019, and February 2020. The low death rate might be attributed to effective public health measures and the typically non-lethal nature of the disease itself. It's worth noting that even in periods of significant outbreaks, the death count remained zero, which reinforces the idea that although AHC can be highly infectious, it is generally not life-threatening.

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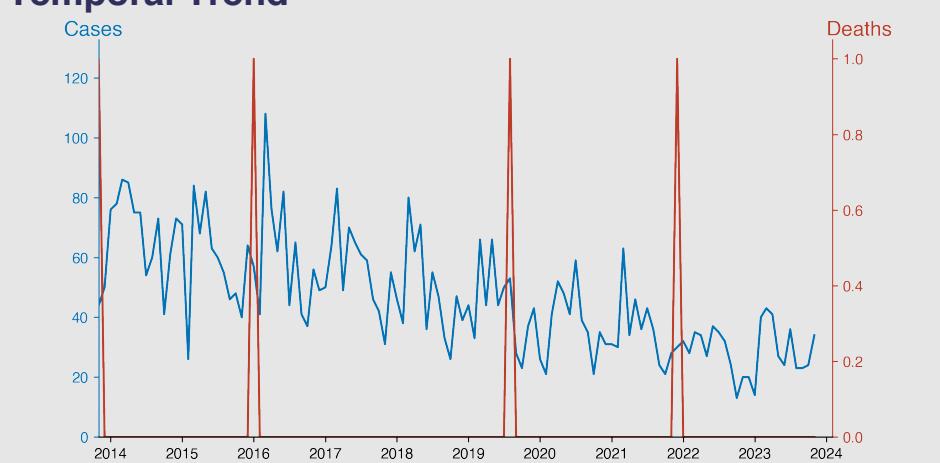
Leprosy

November 2023

Introduction

Leprosy, also known as Hansen's disease, is a chronic infectious condition caused by the bacterium *Mycobacterium leprae*. Distinguished by skin lesions and peripheral nerve damage, leprosy can lead to severe physical impairment if left untreated. It spreads via droplet infection from close and frequent contact with untreated patients. The disease has effective treatments available, such as Multidrug Therapy (MDT), dramatically reducing its global prevalence but it's still present in certain regions.

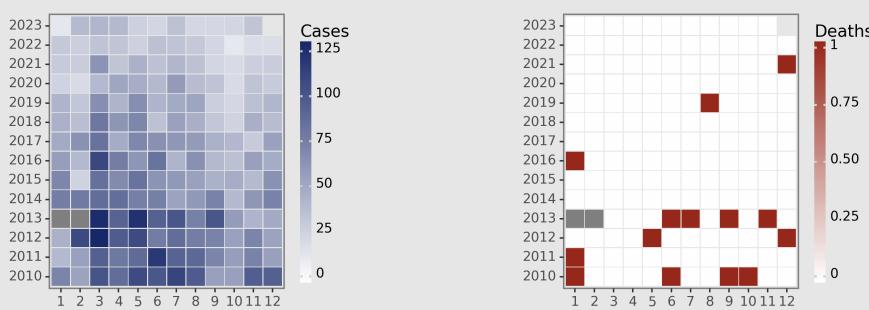
Temporal Trend



Cases Analysis

The given data demonstrates a declining trend of Leprosy cases in China from 2010 to 2023. Initially, fluctuations in case count were observed with counts veering between 41 and 127 (2010-2012). The number generally diminished, however, over the years with greater consistency, dropping to under 100 consistently by 2014. By 2023, no month exceeded 43 cases, indicating a significant reduction in new leprosy incidences. The reduction may be due to successful public health initiatives, increased awareness, improved diagnostics, or increased access to medical treatment.

Distribution



Highlights

- There has been a significant decrease in reported Leprosy cases over the years, from an average of around 80 per month in 2010 to around 30 in 2023, indicating effective control measures.
- Leprosy-related deaths are sporadic and not significantly correlated to the increasing/decreasing trends of reported cases, with an average less than 1 death per month throughout.
- The number of cases varies within the year, with peaks generally occurring in Spring (February-March-April) and troughs in Autumn-Winter (October-November), indicating a possible seasonality.
- As of November 2023, the situation seems to be under control, but continuous surveillance and control measures are still essential to maintain the decreasing trend and prevent resurgence.

Deaths Analysis

The Leprosy death count remained relatively low throughout the period, demonstrating a sporadic distribution and fluctuating annually between 0 - 1 deaths per month. This suggests a relatively low fatality rate, potentially a testament to effective treatment strategies and early detection protocols in the country. The random distribution of deaths depicts a situation where Leprosy is well-managed, with deaths possibly associated more with individual health situations or delayed diagnoses than with the disease's innate severity.

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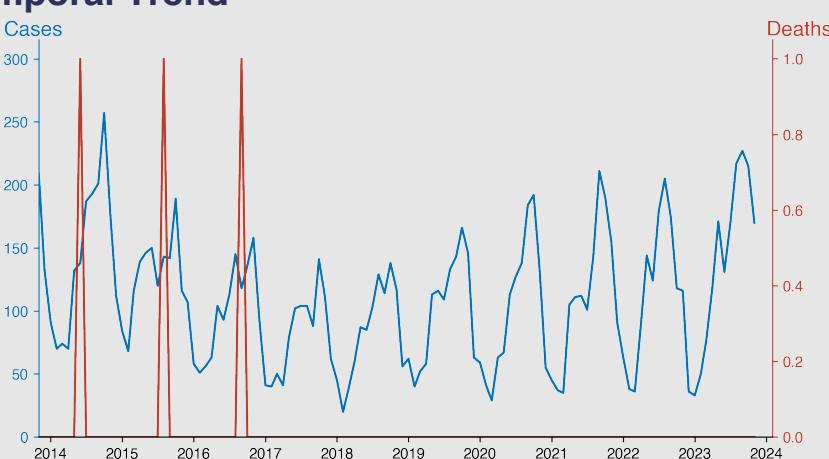
Typhus

November 2023

Introduction

Typhus is an infectious disease typically carried by parasites such as lice, fleas, and ticks, and transmitted to humans through their bites. It is caused by bacteria of the genus Rickettsia. There are several types, which include epidemic typhus, scrub typhus, and murine typhus. Classic symptoms include high fever, headache, and rash. Without treatment, some forms of typhus can be life-threatening. Prevention focuses on avoiding contact with the vectors. Vaccines are not widely available, making early diagnosis and antibiotic treatment crucial.

Temporal Trend



Cases Analysis

The typhus case data reveals an evident seasonal trend in mainland China from 2010 to 2023. The number of cases are lowest in the Winter and Spring (January-March) and peak in the Summer and Autumn (June-October). This may be due to climatic factors that encourage lice proliferation or human behaviors that increase exposure risks. While there was a downshift in yearly peak case numbers around 2017-2018, the count has since been gradually rising again, suggesting the necessity for continuous surveillance and prevention measures.

Highlights

General downtrend in cases: The data points to a general decrease in the number of Typhus cases from 2010 to 2023, evident in lower peak case numbers year-on-year.

2. Seasonal pattern continues: There's a noticeable annual trend with cases typically increasing from spring through to late autumn before decreasing in winter.

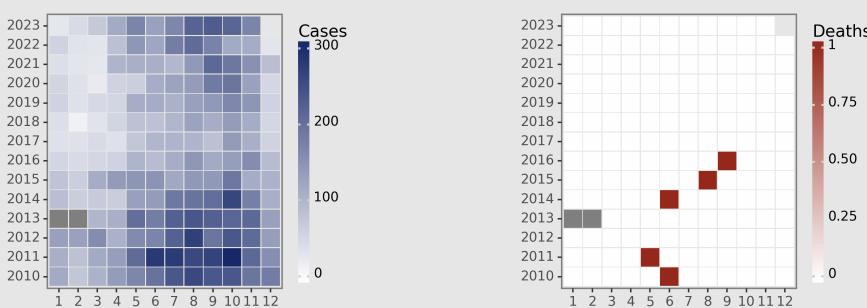
3. Low mortality rate: Across the given time frame, the overall mortality rate from Typhus is very low, with few deaths reported.

4. Slight recent uptick: Despite the long-term decline in Typhus cases, there has been a slight increase in the latter half of 2023, which merits close monitoring.

Deaths Analysis

Instances of deaths due to typhus are sporadic and extremely low compared to the number of reported cases, implying successful disease management practices in mainland China. Throughout 2010-2023, only five fatal cases were recorded, occurring in 2010, 2011, 2014, 2015, and 2016, all during the Summer. These fatalities might be due to more severe disease forms, delayed treatment, or underlying conditions in patients. Despite the low mortality rate, regular monitoring and early intervention are crucial in maintaining this status.

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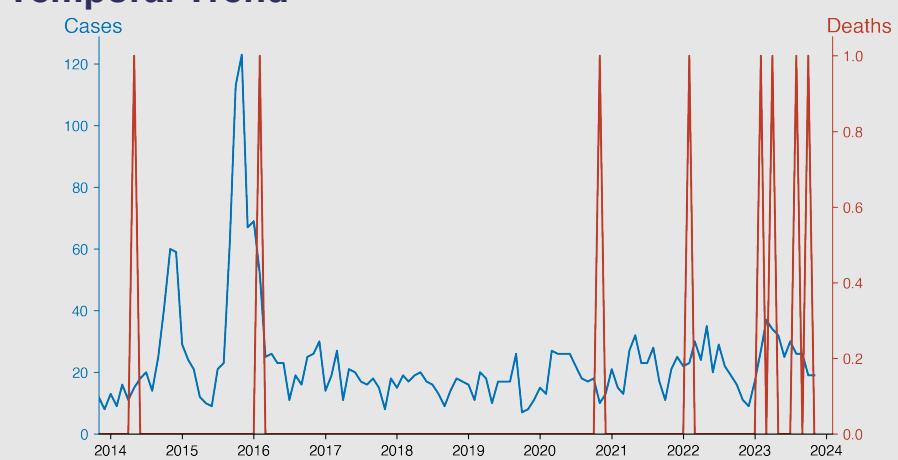
Kala azar

November 2023

Introduction

Kala azar, also known as visceral leishmaniasis, is a severe parasitic disease caused by the Leishmania donovani complex, transmitted through the bite of certain types of sandflies. Approximately 50,000 to 90,000 new cases occur worldwide yearly. If left untreated, the fatality rate can be as high as 100% within two years. It prominently occurs in tropical and subtropical regions, with notable prevalence in India, Bangladesh, Sudan, South Sudan, and Brazil. Symptoms often include fever, weight loss, fatigue, anemia, and enlargement of the spleen and liver.

Temporal Trend



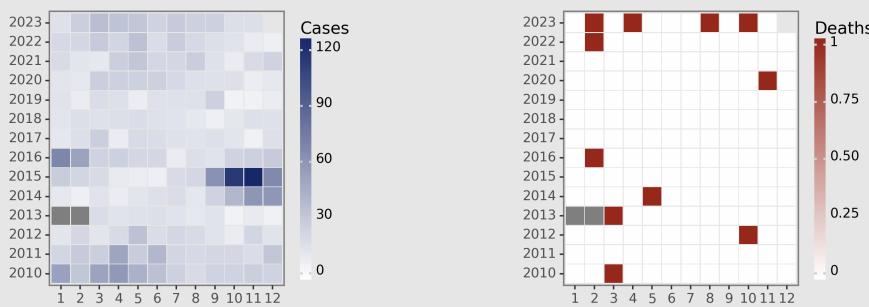
Cases Analysis

Between 2010 and 2023, Kala azar cases in mainland China showed a fluctuating pattern with no clear trend of consistent increase or decrease. Peaks were observed in late 2010, 2011, 2014, 2015, and a slight increase in 2023. The highest number of reported cases was in November 2015, with 123 new diagnoses. Notably, there were dips (lower number of reported cases) during the 2011-2013 period and a gradual peak reduction in 2015, stabilized afterward around 20-30 cases monthly.

Highlights

- General downward trend in Kala azar cases: Over the past decade, mainland China has experienced a general decrease in case numbers, reflecting an improvement in disease control.
- Seasonality evident: An increased number of cases are identified from October to January, suggesting a seasonal trend.
- Low mortality rate: Despite the annual case fluctuations, the fatality rate remains extremely low, indicating effective case management and treatment strategies.
- Higher number of deaths in 2023: Compared to recent years, 2023 has seen increased deaths despite fewer cases, a concern for the healthcare sector.

Distribution



Deaths Analysis

The reported data suggests a low mortality rate for Kala azar within the observed timeframe. Over the 13 years, only nine deaths were reported, occurring sporadically rather than showing a pattern. In the entire timeline, no single month recorded more than one death, highlighting the non-lethal nature of Kala azar when appropriately treated. There was, however, a slight increase in death occurrences towards 2023 which might need to be investigated further for possible causative factors.

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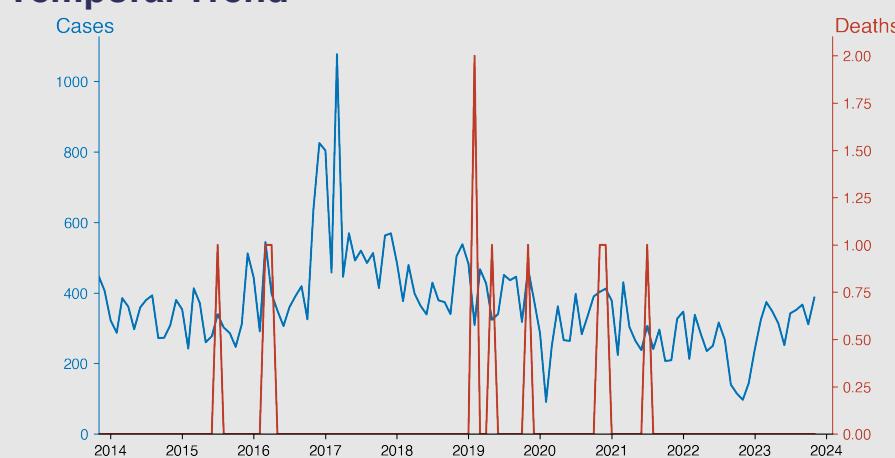
Echinococcosis

November 2023

Introduction

Echinococcosis is a parasitic disease caused by tapeworms of the *Echinococcus* genus. Humans contract it through ingestion of parasite eggs in contaminated food, water, or soil, or through direct contact with animal hosts. It involves two main types: cystic echinococcosis (CE) and alveolar echinococcosis (AE). Symptoms vary based on the affected organ and disease stage, often developing gradually over months or years. It is treatable through surgery, percutaneous techniques, drug therapy, or a watch-and-wait approach depending on the specific situation.

Temporal Trend



Cases Analysis

Data for Echinococcosis cases in mainland China from 2010 to 2023 demonstrate variations with low-reported periods followed by substantial spikes. The highest reported cases occurred in March 2017 with 1077 incidences. A downward trend is noticeable from 2018 onwards, signalling potential improvements in preventive measures or disease control strategies. However, even with decreases in reported cases, Echinococcosis remains a public health concern due to persistently high incidences.

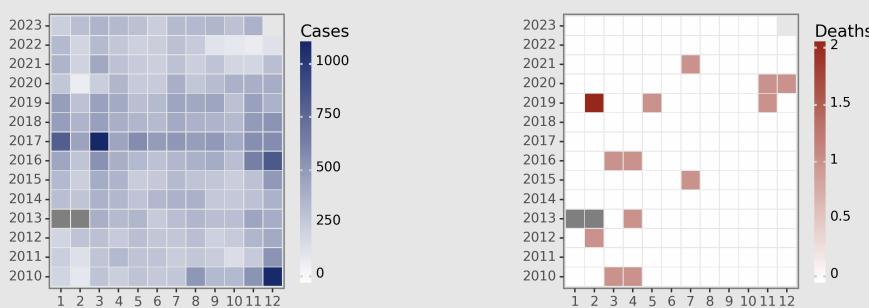
Highlights

- A consistent yearly pattern occurs with Echinococcosis cases peaking towards the end of the year, particularly in December, suggesting a seasonal influence on disease spread.
- Despite occasional spikes (e.g., March 2017), there is an overall declining trend in Echinococcosis cases over the years, with the lowest number of cases seen recently in November 2022.
- The fatality rate appears very low with sporadic occurrences of deaths over the years and near-null deaths in recent years, showing that the disease rarely results in death.
- As of November 2023, the disease situation remains controlled, maintaining the general downward trend, although there is a slight increase in cases from earlier in 2023.

Deaths Analysis

The data indicates a very low fatality rate for Echinococcosis, with only 11 deaths reported out of tens of thousands of cases from 2010 to 2023. Despite these low numbers, the scattered occurrence of fatalities throughout the assessed period signifies the persistent danger of this disease. Proactive case management, swift diagnosis, and appropriate treatment regimes could be contributing factors to the low death rate. Importantly, these deaths underline the continued importance of preventive measures, education, and early detection.

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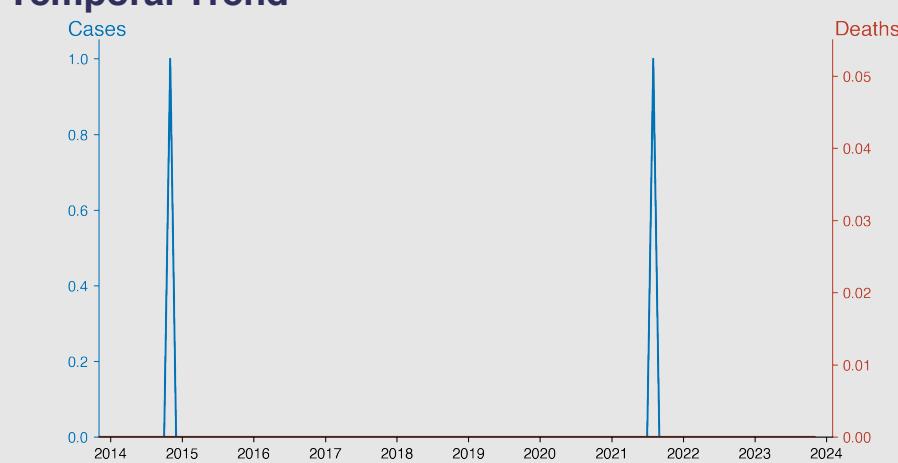
Filarisis

November 2023

Introduction

Filarisis is a tropical, parasitic disease caused by thread-like filarial nematodes (roundworms) in the superfamily Filarioidea, including species like Wuchereria bancrofti, Brugia malayi, and Brugia timori. It's transmitted to humans through the bite of an infected mosquito. The disease often leads to lymphedema, causing severe swelling in the extremities, a condition known as elephantiasis. An estimated 120 million people globally are infected. Prevention primarily centers on vector control and mass deworming campaigns.

Temporal Trend



Cases Analysis

Over the past 13 years, mainland China has reported very few cases of Filarisis, based on the provided data. Specifically, only three cases were noted throughout the entire period with one each in August 2011, November 2014, and August 2021. The significant years between these cases suggests successful prevention or control efforts may be in place. Additionally, there was no discernible seasonal pattern to the reported cases. The extreme rarity of Filarisis incidents emphasizes its epidemiological insignificance in this region during the observed timeframe.

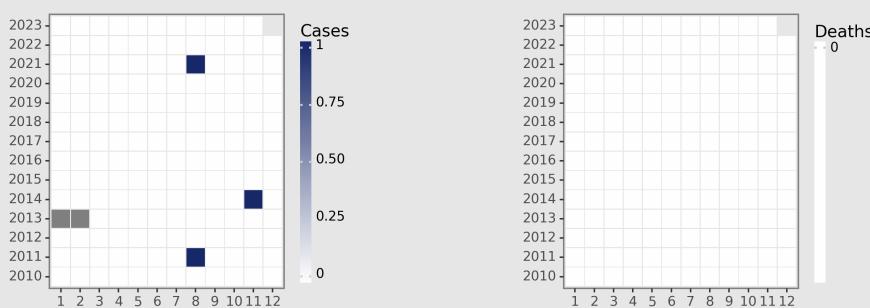
Highlights

- Minimal incidence: The number of Filarisis cases in mainland China from 2010-2023 has been extremely low. Only three instances of the disease have been reported across the data span.
- No fatalities: All recorded cases have been non-fatal. Therefore, mortality due to Filarisis, as of 2023, is inconsequential.
- Irregular monthly cases: Cases of Filarisis have been sporadic, appearing in August 2011, November 2014, and August 2021, suggesting no clear seasonal trend.
- Current situation: As of November 2023, there have been no new cases identified in that year, signifying a potentially successful containment of the disease.

Deaths Analysis

The data exhibits zero deaths resulting from Filarisis across mainland China within the examined period from 2010 to 2023. This indicates either no fatalities related to this disease or successful medical intervention to manage such cases when they arise. The absence of fatalities can be seen as a positive marker in the healthcare sector's response to any occurrence of Filarisis. It also reinforces the effectiveness of any preventative measures in place in this region against the disease.

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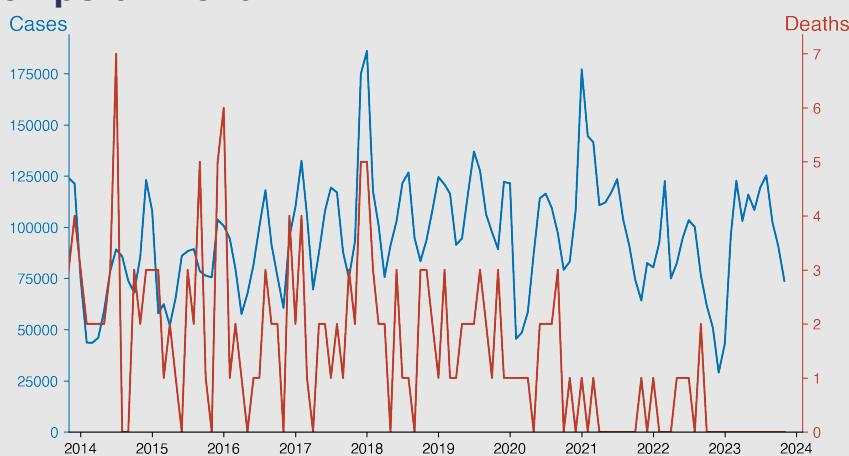
Infectious diarrhea

November 2023

Introduction

Infectious diarrhea, primarily caused by bacteria, viruses, or parasites, is a common health concern globally. The primary symptoms include loose or liquid stools, abdominal pain, and fever. Contamination often occurs through consuming unclean water or food, coming into direct contact with a person carrying the infection, or an unhygienic environment. Serious cases may lead to severe dehydration. While it affects people of all ages, it is particularly concerning in children and elderly due to their lower immunity and higher risk of complications.

Temporal Trend



Cases Analysis

Infectious diarrhea cases in mainland China exhibits a clear seasonal pattern, with the highest incidences commonly observed in the warmer months (June to August). However, new infections show significant year-to-year fluctuations, with the highest reported cases of approximately 186,071 in January 2018. In recent years, there is a steady increase in reported incidents. The rise is particularly marked from 2020 to 2023, potentially suggesting a more extensive spread of the disease or enhancement in diagnostics and reporting channels.

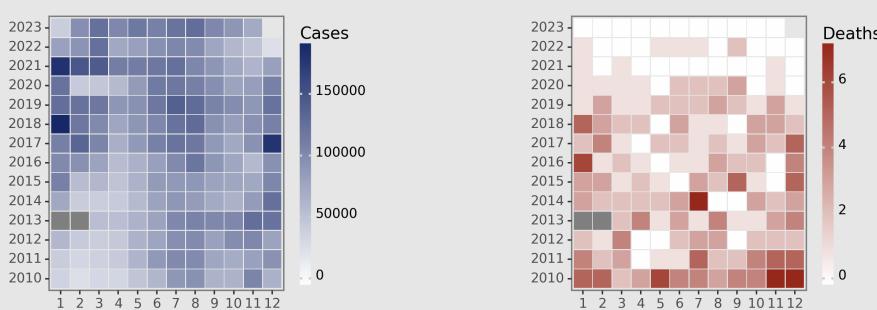
Highlights

- Case Peak in Warmer Months: Infectious diarrhea cases typically peak in the warmer months (late spring, summer, and early autumn), reflecting a strong seasonality effect.
- Decline in Case Number: The number of cases has been generally declining since 2021, indicating a possible improvement in sanitation, hygiene practices, or disease control efforts.
- Limited Fatality: Mortality associated with infectious diarrhea appears extremely low, suggesting efficacious treatment or a health system capable of managing severe cases.
- Consistent in 2023: Throughout 2023, the trend remains consistent with previous years, but the total cases are still relatively lower than in the past.

Deaths Analysis

Even with the high case counts, the fatality rates remain remarkably low throughout the years, rarely exceeding seven deaths per month. These low mortality figures suggest the disease's relatively benign nature when treated; however, it could also reflect successful intervention strategies in place. Over time, there's a notable decline towards zero recorded deaths/month from mid-2020 onwards, demonstrating a commendable improvement in health response to the disease and its management.

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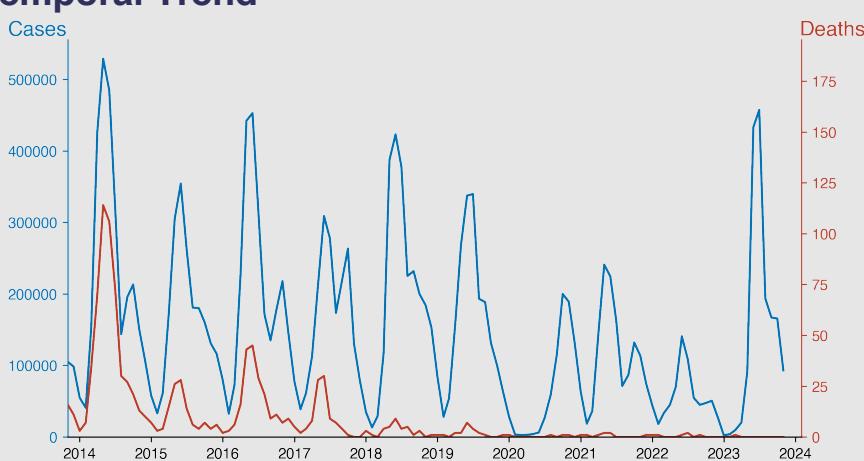
Hand foot and mouth disease

November 2023

Introduction

Hand, Foot, and Mouth Disease (HFMD) is a contagious illness typically caused by the Coxsackie virus. It primarily affects children and is characterized by sores in the mouth, as well as a rash on the hands and feet. HFMD is transmitted through direct contact with nasal secretions, saliva, blister fluid, and feces of infected individuals. It generally occurs in epidemics during the summer and early autumn. Mild self-limiting symptoms include fever, loss of appetite, malaise, and may be accompanied by respiratory symptoms.

Temporal Trend



Cases Analysis

The data signals a cyclic pattern in the incidence of Hand Foot and Mouth Disease (HFMD) in mainland China. It typically shows an increasing trend at the start of the year, with a notable peak generally around May or June, followed by a gradual decrease towards the end of the year. This trend may have a strong correlation with the climatic changes since the disease is more prevalent in warmer weathers. A remarkable exception is observed in the data for 2020 where there was a significant dip in the cases, possibly due to preventive measures taken during the COVID-19 pandemic.

Highlights

There has been a marked reduction in cases and fatalities over the last decade, indicating progress towards disease control.

2. Consistent seasonal trends are observed across the years, with cases peaking during April to July, highlighting the necessity of heightened surveillance during these months.

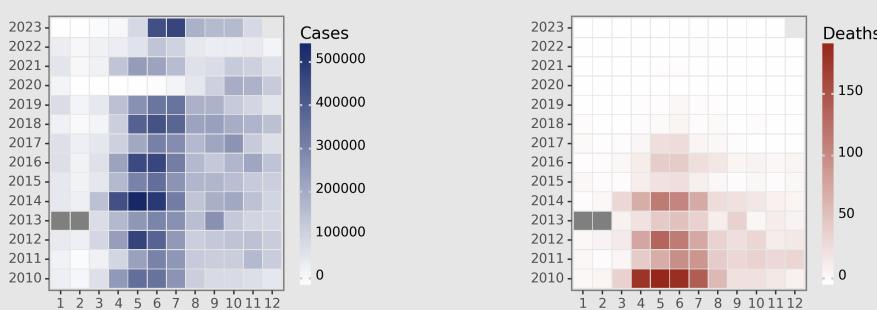
3. Despite the general decrease in cases, there was a significant surge in numbers during June and July 2023, emphasizing the continued need for vigilance and preventive measures.

4. Deaths from Hand, Foot and Mouth Disease have reached a record low in November 2023, signalling enhanced public health interventions.

Deaths Analysis

Death rates from HFMD are relatively low, with the highest recorded in April 2010 at 175. There is no distinct pattern in the fatality rates, but they generally appear to follow the trend of case occurrence, albeit at a much lower frequency. The number of deaths seems to decrease over time, which suggests an improved response to the disease, possibly due to better healthcare provisions and public awareness. It's also noteworthy that no fatalities were reported from 2020 onwards, potentially representing the positive impact of stricter hygiene measures during the COVID-19 crisis.

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