

Chinese Notifiable Infectious Diseases Surveillance Report September 2023



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Chinese Notifiable Infectious Diseases Surveillance Report
IMPORTANT

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Chinese Notifiable Infectious Diseases Surveillance Report

September 2023

Disease	Cases			Deaths		
	Reported	MoM*	YoY**	Reported	MoM*	YoY**
Plague	0	-4.0 (-100.00%)	-1.0 (-100.00%)	0	-1.0 (-100.00%)	-1.0 (-100.00%)
Cholera	9	1.0 (12.50%)	5.0 (125.00%)	0	0.0 (/)	0.0 (/)
SARS-CoV	0	0.0 (/)	0.0 (/)	0	0.0 (/)	0.0 (/)
Acquired immune deficiency syndrome	5,121	-1.0 (-0.02%)	732.0 (16.68%)	1,693	-197.0 (-10.42%)	-154.0 (-8.34%)
Hepatitis	147,758	-18,848.0 (-11.31%)	24,440.0 (19.82%)	177	-13.0 (-6.84%)	105.0 (145.83%)
Hepatitis A	1,038	-73.0 (-6.57%)	93.0 (9.84%)	0	0.0 (/)	-1.0 (-100.00%)
Hepatitis B	123,495	-15,380.0 (-11.07%)	22,412.0 (22.17%)	20	-2.0 (-9.09%)	-15.0 (-42.86%)
Hepatitis C	20,022	-3,192.0 (-13.75%)	1,282.0 (6.84%)	157	-10.0 (-5.99%)	122.0 (348.57%)
Hepatitis D	15	-6.0 (-28.57%)	1.0 (7.14%)	0	0.0 (/)	0.0 (/)
Hepatitis E	2,550	-68.0 (-2.60%)	604.0 (31.04%)	0	-1.0 (-100.00%)	0.0 (/)
Other hepatitis	638	-129.0 (-16.82%)	48.0 (8.14%)	0	0.0 (/)	-1.0 (-100.00%)
Poliomyelitis	0	0.0 (/)	0.0 (/)	0	0.0 (/)	0.0 (/)
Human infection with H5N1 virus	0	0.0 (/)	-1.0 (-100.00%)	0	0.0 (/)	0.0 (/)
Measles	78	-27.0 (-25.71%)	0.0 (0.00%)	0	0.0 (/)	0.0 (/)
Epidemic hemorrhagic fever	198	-42.0 (-17.50%)	-7.0 (-3.41%)	1	1.0 (/)	1.0 (/)
Rabies	8	-4.0 (-33.33%)	-6.0 (-42.86%)	7	-1.0 (-12.50%)	-1.0 (-12.50%)
Japanese encephalitis	62	-18.0 (-22.50%)	9.0 (16.98%)	1	0.0 (0.00%)	0.0 (0.00%)
Dengue	6,494	2,296.0 (54.69%)	6,466.0 (23092.86%)	1	1.0 (/)	1.0 (/)
Anthrax	61	-62.0 (-50.41%)	19.0 (45.24%)	1	1.0 (/)	1.0 (/)
Dysentery	3,658	-968.0 (-20.93%)	524.0 (16.72%)	0	0.0 (/)	0.0 (/)
Tuberculosis	61,859	-4,704.0 (-7.07%)	3,221.0 (5.49%)	324	21.0 (6.93%)	-23.0 (-6.63%)
Typhoid fever and paratyphoid fever	596	-82.0 (-12.09%)	-35.0 (-5.55%)	0	0.0 (/)	0.0 (/)
Meningococcal meningitis	5	-1.0 (-16.67%)	3.0 (150.00%)	0	0.0 (/)	0.0 (/)
Pertussis	4,517	-276.0 (-5.76%)	668.0 (17.36%)	0	-1.0 (-100.00%)	0.0 (/)
Diphtheria	0	0.0 (/)	0.0 (/)	0	0.0 (/)	0.0 (/)
Neonatal tetanus	1	-1.0 (-50.00%)	-3.0 (-75.00%)	0	0.0 (/)	0.0 (/)
Scarlet fever	1,546	337.0 (27.87%)	526.0 (51.57%)	0	0.0 (/)	0.0 (/)
Brucellosis	5,987	-2,367.0 (-28.33%)	676.0 (12.73%)	2	2.0 (/)	2.0 (/)
Gonorrhea	10,147	-777.0 (-7.11%)	1,549.0 (18.02%)	0	0.0 (/)	0.0 (/)
Syphilis	55,767	-5,301.0 (-8.68%)	11,297.0 (25.40%)	5	2.0 (66.67%)	-4.0 (-44.44%)
Leptospirosis	71	14.0 (24.56%)	28.0 (65.12%)	0	0.0 (/)	-2.0 (-100.00%)
Schistosomiasis	3	2.0 (200.00%)	-5.0 (-62.50%)	0	0.0 (/)	0.0 (/)
Malaria	193	-41.0 (-17.52%)	97.0 (101.04%)	1	-1.0 (-50.00%)	-1.0 (-50.00%)
Human infection with H7N9 virus	0	0.0 (/)	0.0 (/)	0	0.0 (/)	0.0 (/)
Monkey pox	80	/ (/)	/ (/)	0	/ (/)	/ (/)
Influenza	168,963	108,433.0 (179.14%)	78,874.0 (87.55%)	0	0.0 (/)	0.0 (/)
Mumps	10,867	2,948.0 (37.23%)	-174.0 (-1.58%)	0	0.0 (/)	0.0 (/)
Rubella	72	-31.0 (-30.10%)	-26.0 (-26.53%)	0	0.0 (/)	0.0 (/)
Acute hemorrhagic conjunctivitis	125,264	112,522.0 (883.08%)	122,991.0 (5410.95%)	0	0.0 (/)	0.0 (/)
Leprosy	23	0.0 (0.00%)	-1.0 (-4.17%)	0	0.0 (/)	0.0 (/)
Typhus	227	10.0 (4.61%)	53.0 (30.46%)	0	0.0 (/)	0.0 (/)
Kala azar	26	0.0 (0.00%)	7.0 (36.84%)	0	-1.0 (-100.00%)	0.0 (/)
Echinococcosis	367	15.0 (4.26%)	227.0 (162.14%)	0	0.0 (/)	0.0 (/)
Filariasis	0	0.0 (/)	0.0 (/)	0	0.0 (/)	0.0 (/)
Infectious diarrhea	102,559	-22,760.0 (-18.16%)	26,069.0 (34.08%)	0	0.0 (/)	-2.0 (-100.00%)
Hand foot and mouth disease	166,980	-26,558.0 (-13.72%)	122,108.0 (272.13%)	0	0.0 (/)	-1.0 (-100.00%)
Total	879,567	143,785.0 (19.54%)	393,238.0 (80.86%)	2,213	-187.0 (-7.79%)	-79.0 (-3.45%)

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

Overview:

During September 2023, Mainland China experienced notable variance in the prevalence of various infectious diseases, as observed through the National Notifiable Disease Reporting System. The total number of reported cases for diseases of public health significance amounted to significant figures, with particularly high figures noted in diseases like hand, foot, and mouth disease, infectious diarrhea excluding specific gastrointestinal conditions, and Hepatitis B, all suggesting active transmission in the population. The reported deaths were relatively low in comparison to the total number of cases, indicating either the less severe nature of many infections or effective clinical management. However, the high case numbers signal ongoing public health challenges that demand continued vigilance and intervention.

The all-cause mortality among AIDS patients remains a notable point of concern for the medical community, with a considerable number of deaths reported for the month. Acquired immune deficiency syndrome continues to be a significant contributor to the disease burden in terms of mortality. Contrastingly, other diseases like influenza and measles reported cases without associated fatalities, reflecting either successful vaccination efforts or less aggressive disease strains during the observed period.

Concerns:

Diseases with high incidence, such as hand, foot, and mouth disease, and infectious diarrhea, did not correspond with high mortality, indicating effective clinical management and perhaps less virulent pathogen strains. However, their high prevalence poses significant concerns for public health due to their potential disruptiveness, morbidity, and strain on healthcare resources. Hepatitis B, with its persistent high case numbers, presents a chronic challenge, requiring continued vaccination and monitoring efforts.

Public concern was particularly heightened around newly emerging or re-emerging infections, evidenced by the close monitoring and rapid inclusion of Monkeypox as a Class B infectious disease since September 20, 2023. While Monkeypox did not contribute to significant case numbers or mortality this month, the change in its reporting status reflects the public health priority to stay responsive to potential outbreaks.

Limitations:

The current data's scope has several limitations that must be recognized for a comprehensive understanding of disease prevalence and its impact. Monthly reported cases may lack precision due to potential underreporting, differences in regional surveillance capacity, and delays in data compilation. Furthermore, the reliance on both clinically-diagnosed and laboratory-confirmed cases introduces variability in case definition and detection, which could either overestimate or underestimate disease occurrence.

Additionally, the exclusion of data from the special administrative regions of Hong Kong and Macau, as well as Taiwan, means that the report does not encompass all Chinese territories, possibly skewing the national profile of disease spread and risk. It is also important to note that the annual verification process might adjust reported figures post hoc, as duplicate cases or misreporting are corrected in February of the following year.

Recommendations:

Given the present epidemiological insights, it is recommended that the general public in Mainland China remain keenly aware of the risks associated with infectious diseases and actively engage in preventive measures. Effective hand hygiene, adherence to vaccination schedules, and safe food handling practices are pivotal strategies for reducing the transmission of high-incidence diseases. High-risk individuals, including those with chronic liver diseases, should maintain regular health check-ups and consider Hepatitis B vaccination if not already immunized.

Public education campaigns should be ramped up to bolster awareness regarding newly included infectious diseases, like Monkeypox, and encourage reporting of suspected cases to authorities. The current data emphasizes the efficacy of disease management protocols and the need for sustained healthcare investments to handle both prevalent and emerging health threats. Collaboration with global health organizations will ensure that China stays at the forefront of infectious disease surveillance, outbreak response, and research initiatives.

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.

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.

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News information since September 2023 in Chinese Mainland

Summary:

Since September 2023, mainland China has experienced a significant increase in respiratory diseases. Medical professionals and experts are not overly concerned as these cases are similar to common colds, coughing, and fever symptoms and are treatable. An uptick in respiratory ailments among children in Northern China has been reported by the World Health Organization (WHO) and China's National Health Commission, which corresponds with the lifting of COVID-19 restrictions and seasonal changes. There's no indication of new infectious disease pathogens emerging at this time.

Outbreaks of Known Diseases:

The recent surge in illnesses has primarily involved known pathogens, such as Influenza, Mycoplasma pneumoniae, Respiratory Syncytial Virus (RSV), and Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). These diseases have mostly affected children who are more susceptible than adults to these pathogens.

Emergence of Novel Pathogens:

Currently, there is no evidence of the emergence of new pathogens. Investigations by Chinese health authorities and the WHO into unexplained clusters of pneumonia in Beijing and Liaoning suggest that the cases are due to known pathogens rather than novel infectious disease agents. Experts believe the current situation may be due to reduced exposure to respiratory viruses in the past, leading to lower immunity to these endemic viruses.

In summary, while there has been an increase in respiratory diseases in mainland China, these are predominantly due to known pathogens, not new infectious agents. Health agencies and international organizations are closely monitoring the situation and taking measures to control the spread of diseases.

News information since September 2023 around world

Summary:

The global overview since September 2023 reveals multiple infectious disease events with varying impact, including established diseases in specific risk areas, the sources of infection, recent case updates, and notable outbreaks.

Outbreaks of Known Diseases:

Unfortunately, the provided text does not include specific details about known disease outbreaks during the mentioned period. For a complete report, details about the diseases, affected regions, and the number of cases would be necessary. Please provide the relevant information, so that a detailed accounting of known disease outbreaks can be furnished.

Emergence of Novel Pathogens:

The given text lacks information on the emergence of novel pathogens. To discuss any new pathogens that have appeared since September 2023, additional specific data would be required. Please provide the relevant excerpts or summaries that refer to the appearance of any new infectious agents.

Chinese Notifiable Infectious Diseases Surveillance Report

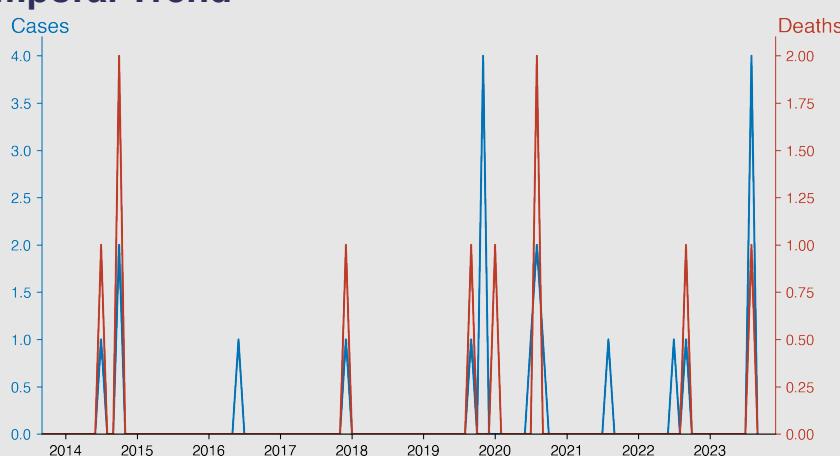
Plague

September 2023

Introduction

Plague is an infectious disease caused by the bacterium *Yersinia pestis*, mainly found in rodents and their fleas. The disease can manifest in three forms: bubonic, septicemic, and pneumonic. Bubonic plague is the most common, characterized by swollen lymph nodes, while septicemic plague affects the bloodstream, and pneumonic plague the lungs. Transmission occurs through flea bites, direct contact with infected tissues, or inhalation of respiratory droplets. Historically, plague caused widespread pandemics, including the Black Death in the 14th century. Today, it is treatable with antibiotics but can still cause fatalities without prompt treatment.

Temporal Trend



Highlights

Plague in mainland China has a generally low prevalence, with a few sporadic occurrences reported annually.

- Notably, the data reveals an increase in plague activity during the autumn period (September - October), with 2019 observing the highest number of cases in November.

- The mortality rate of the reported cases fluctuates but generally appears to be high, suggesting potentially late detection or aggressive forms of the pathogen.

- As of September 2023, the situation is currently stable with no new cases reported; however, the substantial increase in the previous month (August) warrants enhanced surveillance.

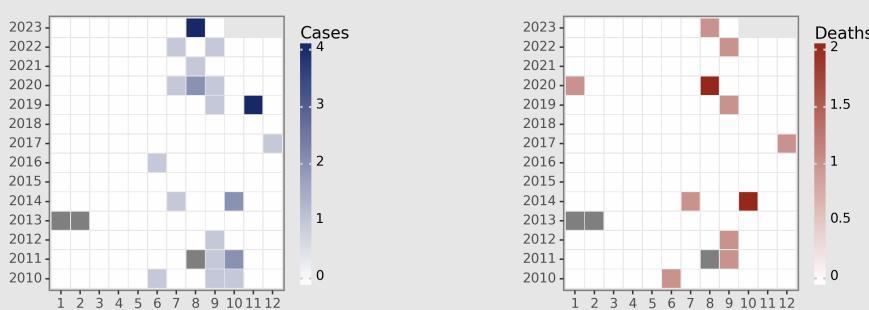
Cases Analysis

The data indicates that plague cases in mainland China are exceedingly infrequent. Instances of reported cases seem to occur sporadically, with the average number of cases per month barely exceeding 0 for the majority of the reported period. A more substantial situational change occurs in 2019 with 5 cases being registered in 2 months, and in 2023 with 4 cases in August. As no regular pattern in plague cases emerges, these instances may reflect isolated occurrences rather than widespread epidemics.

Deaths Analysis

A similar pattern can be observed in the number of reported deaths resulting from the plague. The death rate seems to correlate with the number of reported cases, indicating an almost 1:1 ratio. However, some instances (e.g. August 2020, August 2023) show less deaths than reported cases, suggesting some level of effective treatment or misdiagnosis occurring. The data shows no significant increase or decrease in deaths over time, aligning with the sporadic occurrence pattern rather than a consistent trend.

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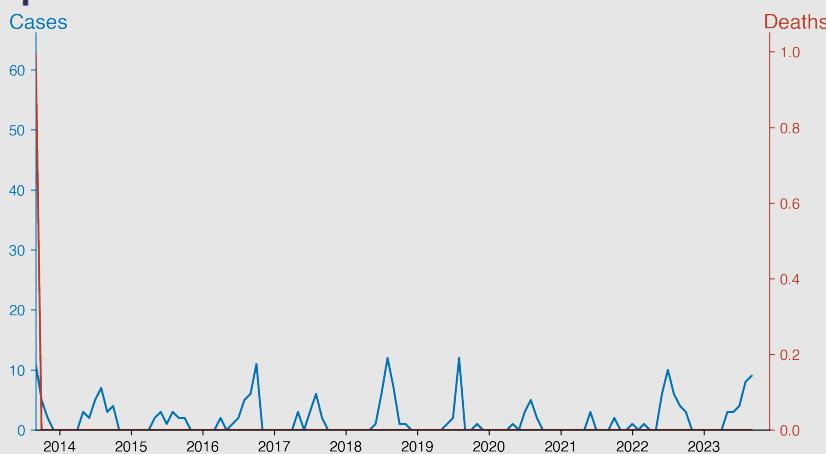
Cholera

September 2023

Introduction

Cholera is an acute intestinal infection caused by ingesting food or water contaminated with the bacterium *Vibrio cholerae*. It is characterized by watery diarrhea, vomiting, and leg cramps, which can lead to severe dehydration and death if untreated. The disease is most commonly spread in areas with inadequate water treatment, poor sanitation, and hygiene practices. Cholera is endemic in many countries and can lead to large-scale outbreaks. Prevention relies on access to clean water, proper sanitation, and education about hygiene practices, along with oral cholera vaccines in high-risk populations.

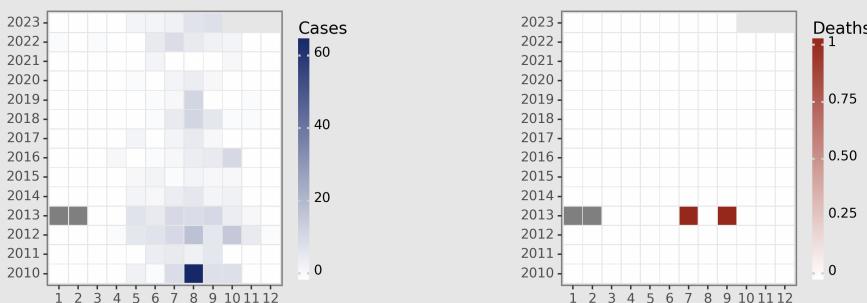
Temporal Trend



Cases Analysis

Analysis of the Cholera data in mainland China from 2010 to 2023 shows cyclic trends in cases, with peaks normally occurring in mid-year. These trend patterns hint at a seasonal cycle where warmer periods could propagate the spread of the bacterium causing cholera. While periodic spikes in cases, up to 63 in August 2010, are observed, the overall trend suggests a steady decrease in instances over time. Interestingly, cases seem to experience a pervasive decline after 2016, demonstrated by consistent single-digit figures in monthly cases, with a few exceptions. The reduction might be attributed to improved sanitation and preventive health measures.

Distribution



Highlights

There is a seasonal trend in Cholera cases in mainland China, with peaks generally appearing during the summer months (June - September).

- The overall number of cases has noticeably decreased over the years, indicating improved public health measures and infrastructural improvements.
- Despite fluctuations, it is noteworthy that the number of Cholera deaths remained consistently low, suggesting a high rate of successful treatment and survival.
- As for September 2023, there were 9 new cholera cases in mainland China, with no deaths recorded, but vigilance is required as this is typically a period of increased disease incidence.

Deaths Analysis

Despite the fluctuating trend in cholera cases, the reported deaths remain strikingly low throughout the evaluated period. The mainland China data documents only two deaths over the 13-year interval, occurring in July and September 2013. This could indicate successful prompt medical intervention and treatment in reported cases. The maintained low mortality rate, despite the varying incidence of cases, underscores the efficacy of China's health system in managing cholera. It might also reflect extensive public health campaigns, improvements in water safety, and more widespread use of oral cholera vaccines.

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SARS-CoV

September 2023

Introduction

Severe acute respiratory syndrome coronavirus (SARS-CoV) is a viral strain that causes a respiratory disease. It was identified in 2003, following an outbreak that originated in Guangdong Province, China, in late 2002. This coronavirus is zoonotic, believed to have jumped from animals to humans, with potential intermediate hosts such as civet cats. SARS-CoV infection in humans can lead to severe pneumonia and has a notable mortality rate. The spread of the virus was contained globally by mid-2003 through effective public health measures. SARS-CoV is a precursor to other coronaviruses like SARS-CoV-2, which caused the COVID-19 pandemic.

Temporal Trend



Cases Analysis

The data reflect that mainland China has had zero reported cases of SARS-CoV from January 2010 until now. This can be attributed to China's well-implemented, stringent public health measures from the 2002-2003 outbreak, as well as heightened international disease surveillance. Potential limitations to the case reporting could be under-reporting or non-testing, which might be due to the symptomless nature of most SARS-CoV cases or hesitancy about reporting due to stigma.

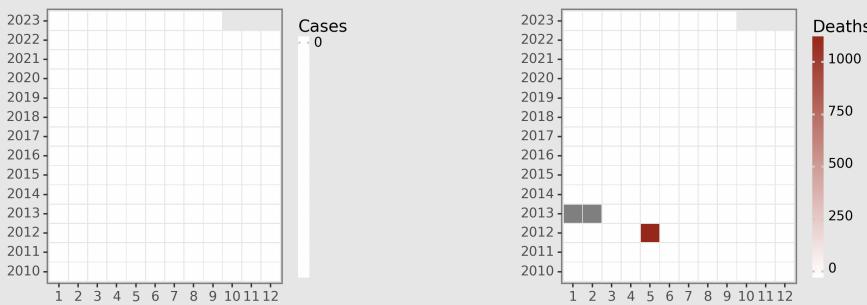
Highlights

- Since 2010, there has been no new cases of SARS-CoV reported in mainland China, indicating an effective control and preventive measures over the spread of the virus.
- Despite absence of new cases, there were 1093 deaths reported in May 2012, suggesting mortality due to complications from previous infections or delay in reporting.
- Post this spike in May 2012, the death toll has been consistently zero, which implies successful containment and therapeutic strategies.
- As of September 2023, the SARS-CoV situation remains stable with zero new cases or deaths, signifying a sustained period of virus inactivity in mainland China.

Deaths Analysis

There were no registered deaths from SARS-CoV across mainland China for the reported period, apart from an outlier in May 2012 when 1093 deaths occurred. This surge could be due to a variety of reasons, including changes in reporting, reclassification of previous deaths, or a minor outbreak that was contained. The return to zero mortality rate post-May suggests successful interventions. However, assessing the accuracy of this data requires verification of the cause of this surge and an understanding of China's death certification process.

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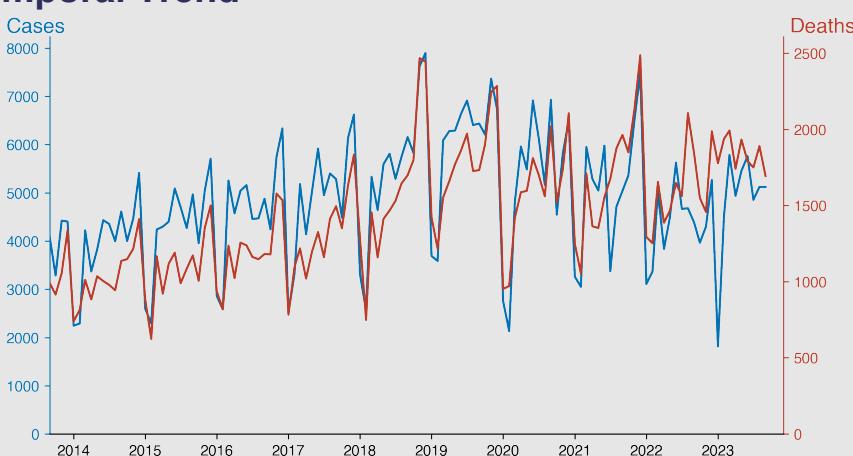
Acquired immune deficiency syndrome

September 2023

Introduction

Acquired Immune Deficiency Syndrome (AIDS) is a chronic and potentially life-threatening condition caused by the human immunodeficiency virus (HIV). The virus damages the immune system, hindering the body's ability to fight infections and diseases. AIDS is the most advanced stage of HIV infection, characterized by the development of certain cancers, infections, or other severe clinical manifestations. It was first recognized in the early 1980s and has since become a global pandemic. Treatment involves antiretroviral therapy (ART) which, while not a cure, can significantly prolong and improve the lives of those living with HIV.

Temporal Trend



Cases Analysis

The reported cases of Acquired Immune Deficiency Syndrome (AIDS) in mainland China present significant month-to-month fluctuations, with observable increasing trends over the long term. The numbers start from approximately 1,663 in January 2010, followed by a rise and fall pattern across subsequent years peaking at about 7,897 in December 2018. Following this peak, the cases have generally declined, although with an upswing centered in the latter half of subsequent years. Based on the presented data, it appears that the burden of AIDS in mainland China is still considerable and remains an issue of major concern.

Highlights

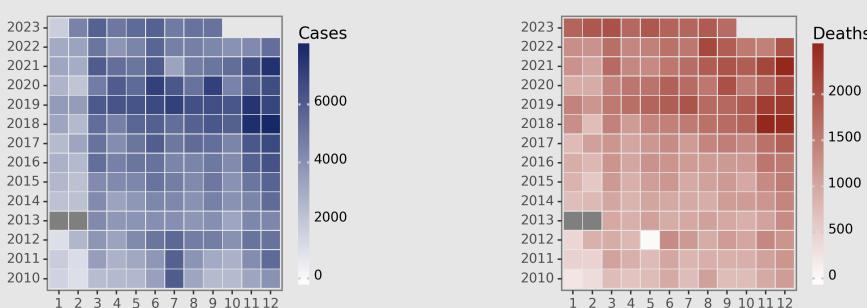
A steady increase in the number of both Acquired immune deficiency syndrome (AIDS) cases and deaths has been witnessed from 2010 to 2023 in mainland China.

- There is a persistent upward trend observed even in the year 2023, indicating a growing health concern.
- Particularly, the death rate due to AIDS has seen a significant surge in early 2023.
- Despite considerable advances in global medical services, the situation remains challenging and demands persistent efforts towards control and prevention of AIDS.

Deaths Analysis

The data on reported AIDS-related deaths exhibits an upward trend across the same period, despite variations between individual months. In the early part of the period under consideration (January 2010), deaths were around 301 per month, but these rose to about 2,486 per month by December 2021, marking a considerable increase. However, it is noteworthy that within the same period, monthly deaths had already approached this figure in late 2018. The variations in AIDS-related deaths are indicative of the evolving nature of the epidemic, warranting ongoing surveillance and adaptive strategies to mitigate its impact.

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Hepatitis

September 2023

Introduction

Hepatitis is a medical condition characterized by inflammation of the liver, which can result in a range of health problems, including liver damage, cirrhosis, and liver cancer. It can be caused by infectious agents like viruses, bacteria, and parasites (most commonly, the hepatitis viruses A, B, C, D, and E), toxic substances like alcohol and certain drugs, or autoimmune disorders. Symptoms may include jaundice, fatigue, abdominal pain, and nausea. Treatment and prognosis vary widely depending on the cause and severity of the liver inflammation. Vaccines are available for some types, such as hepatitis A and B.

Temporal Trend



Cases Analysis

Between 2010 and 2023, Hepatitis cases in mainland China showed significant fluctuations, often peaking in mid-year and declining towards year-end. The highest case count was recorded in August 2023 with 166,606 cases, and the lowest in February 2020 with 63,330.

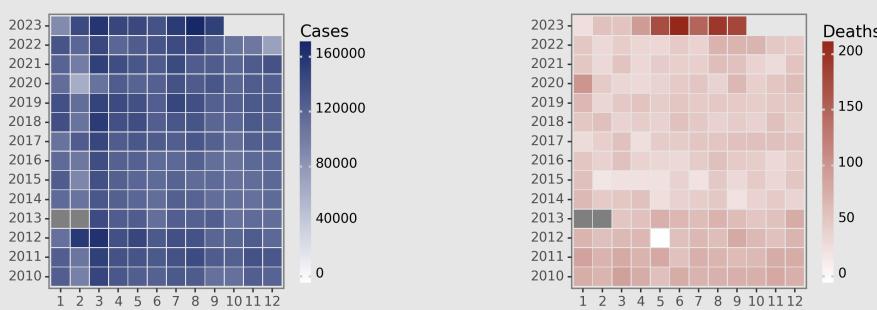
There was a visible drop in cases in 2020, potentially due to reinforced hygiene practices or reduced testing during the COVID-19 pandemic, but numbers rose again in 2021 and remained relatively high up to 2023.

Highlights

The number of Hepatitis cases in mainland China has shown an oscillating trend over the years with peaks typically occurring between April and September.

- Over the entire period, there has been no sustained reduction in cases suggesting that Hepatitis remains a significant public health issue.
- The mortality rate in most months remains low, with identified deaths typically less than 0.01% for most of the recorded period.
- However, a sharp increase in Hepatitis-associated deaths is seen from May 2023 suggesting an emerging public health emergency.

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Chinese Notifiable Infectious Diseases Surveillance Report

Hepatitis A

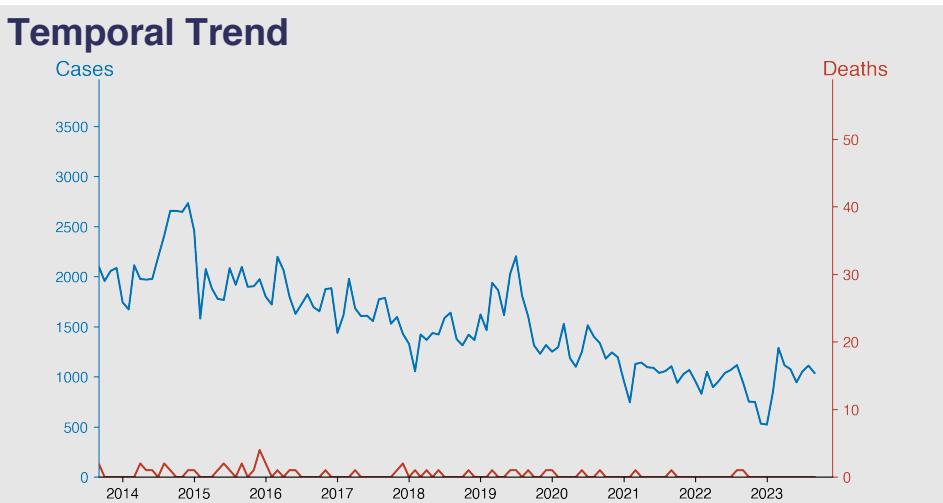
September 2023

Introduction

Hepatitis A is an infectious disease of the liver caused by the Hepatitis A virus (HAV). It is typically transmitted through the ingestion of contaminated food or water or through direct contact with an infectious person. The virus causes an acute infection, with symptoms ranging from mild to severe, including jaundice, fatigue, abdominal pain, loss of appetite, nausea, diarrhea, and fever.

Vaccination can prevent infection, and improved sanitation and hygiene are crucial in controlling the spread of the virus. Most infected individuals recover fully with no lasting liver damage, although rare cases can be more severe or even fatal.

Temporal Trend



Highlights

There has been a notable overall reduction in Hepatitis A cases in mainland China from 2010 to 2023, illustrating successful disease containment measures.

- A seasonal trend of increased cases from July to September is observed over years, indicating its role as a critical period for intervention.
- Despite high case numbers, death rates retained a consistently low trend, indicating effective case management strategies nationwide.
- Presently (September 2023), consistent with historic trends, case numbers began to rise but no fatalities were reported, indicating a controllable disease situation.

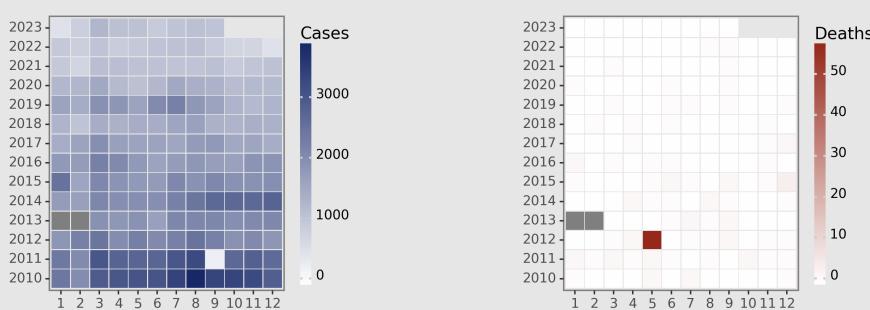
Cases Analysis

The data details Hepatitis A cases in China spanning from 2010 to 2023. In that time, case numbers fluctuated typically between 1000-3000 monthly cases. A sharp reduction in cases can be observed starting from 2015, with numbers mostly ranging between 1400-2100. By 2021, a further decrease is seen with case numbers consistently falling below 1150 each month. Such decrease in disease prevalence might indicate effective public health interventions, including vaccination and sanitation improvements.

Deaths Analysis

Over the same time period, deaths due to Hepatitis A remained quite low, with most months reporting 0-2 fatalities. A notable exception is May 2012 with an unusual spike of 56 deaths. Post 2012, fatalities didn't exceed 4 per month. Since 2017, most months reported no fatalities. The low mortality rate may be attributed to improved healthcare provision, and early diagnosis and treatment. It's also possible that mass vaccination greatly affected infection severity, reducing fatal outcomes.

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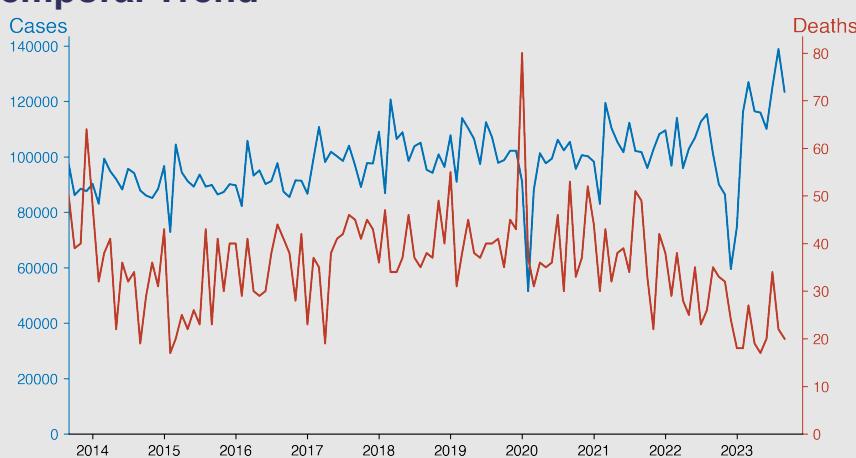
Hepatitis B

September 2023

Introduction

Hepatitis B is a potentially life-threatening liver infection caused by the Hepatitis B virus (HBV). It is a major global health problem, leading to acute and chronic disease that can result in liver cirrhosis, liver failure, or hepatocellular carcinoma. The virus is transmitted through contact with blood or other body fluids of an infected person. A safe and effective vaccine can prevent Hepatitis B, and it is commonly given as part of childhood vaccination programs. While acute infections may be mild or symptom-free, chronic Hepatitis B can cause long-term health issues and requires medical management.

Temporal Trend



Cases Analysis

The data indicates fluctuating numbers of Hepatitis B cases in Mainland China from January 2010 to September 2023. The lowest was in December 2022 with 59498 cases while the peak was noted in August 2023 with 138875 cases. Though there were some periods with decline, there is an overall upward trend in the later years, notably starting from 2016. This upward trajectory suggests an increased rate of transmission or possibly improved disease surveillance and diagnosis.

Highlights

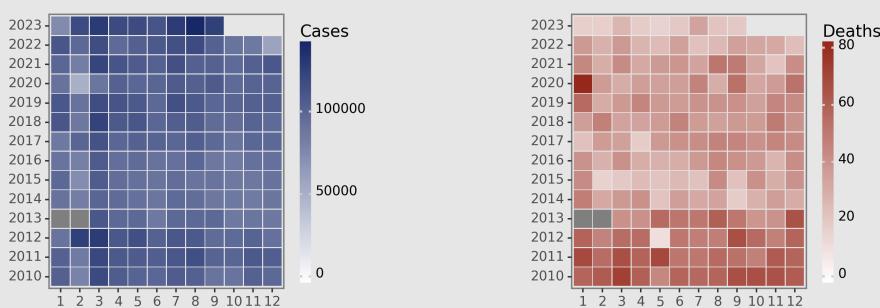
There has been a general decrease in the number of Hepatitis B cases in China from 2010 to 2023, with minor fluctuations.

- Despite some spikes such as in March and August 2023 with 126,932 and 138,875 cases respectively, the overall trend suggests effective disease control methods.
- Mortality rates have remained relatively low throughout all years, signifying good patient management.
- As of September 2023, the situation appears to be under control with a decline in the number of cases and deaths (123,495 and 20, respectively).

Deaths Analysis

The death toll due to Hepatitis B varied from a low of 12 in May 2012 up to a high of 80 in January 2020. Despite minor fluctuations, the mortality remained relatively stable throughout the period. The number of deaths does not appear to directly correlate with the number of diagnoses, suggesting effective management of the disease. However, the fluctuations may indicate varying treatment success rates, the virulence of the virus, or other health interventions. Despite the steady mortality rate, the increasing caseload suggests an urgent need for effective disease prevention.

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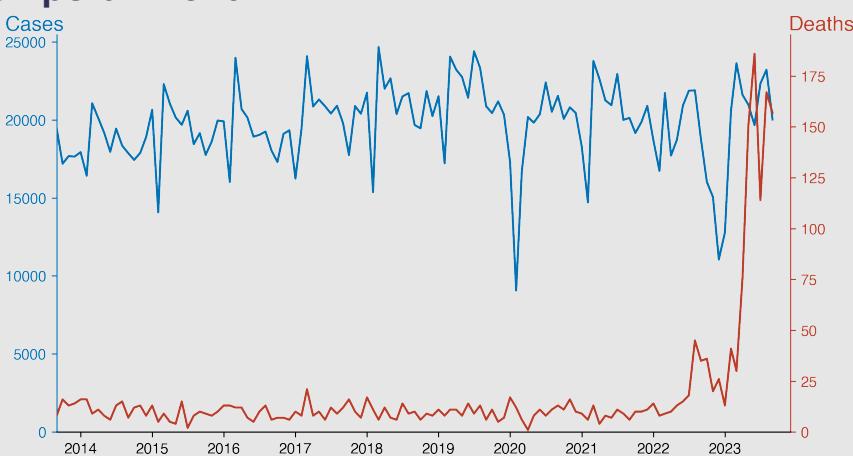
Hepatitis C

September 2023

Introduction

Hepatitis C is a liver infection caused by the Hepatitis C virus (HCV). It results in inflammation and can lead to serious liver damage. The virus is typically spread through blood-to-blood contact, often via sharing needles or other equipment to inject drugs. Many people with HCV are asymptomatic, but when present, symptoms may include fatigue, jaundice, and abdominal pain. Chronic Hepatitis C can result in long-term health issues such as cirrhosis and liver cancer. Antiviral medications can treat and cure most cases of Hepatitis C infection.

Temporal Trend



Cases Analysis

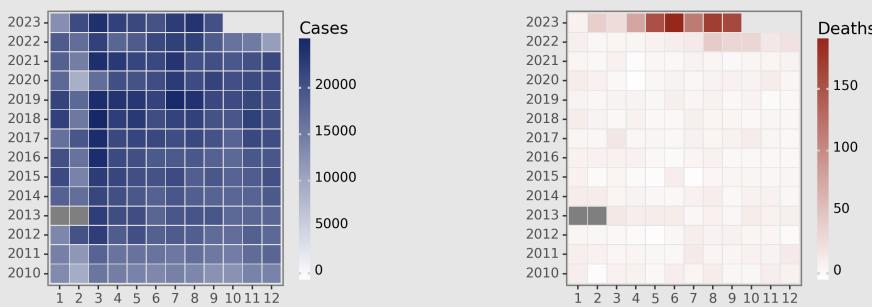
The number of Hepatitis C cases in mainland China has displayed an inconsistent trend, with some fluctuations. From 2010 to 2022, there was a general increase, with the highest number of cases (24,666) recorded in March 2018. However, a sharp decrease in the number of cases has been observed from 2022, dropping to 11,050 in December 2022. This is followed by a sudden increase in cases in January 2023 to 20,580.

Highlights

Data shows a consistent, upward trend of Hepatitis C cases from 2010 to 2023 with occasional decreases.

- An alarming spike in death rates is evident from July 2022, surpassing previous records and consistently increasing, with the peak in June 2023 at 186 deaths.
- Despite an increase in cases in 2023, September reports a slight decrease in both reported cases and deaths compared to the previous month.
- Overall, the Hepatitis C situation in mainland China is deteriorating, with a marked increase in mortality in the most recent year.

Distribution



Deaths Analysis

In terms of fatalities, the death toll has remained relatively low throughout the years 2010-2022, seeing negligible changes with a few notable spikes such as 21 deaths in March 2017. However, from 2023, there's a significant surge in Hepatitis C-related deaths, exponentially rising from 13 in January to 186 in June, averaging 109.75 cases for the first eight months of 2023. This sudden upsurge necessitates an immediate public health response for disease control.

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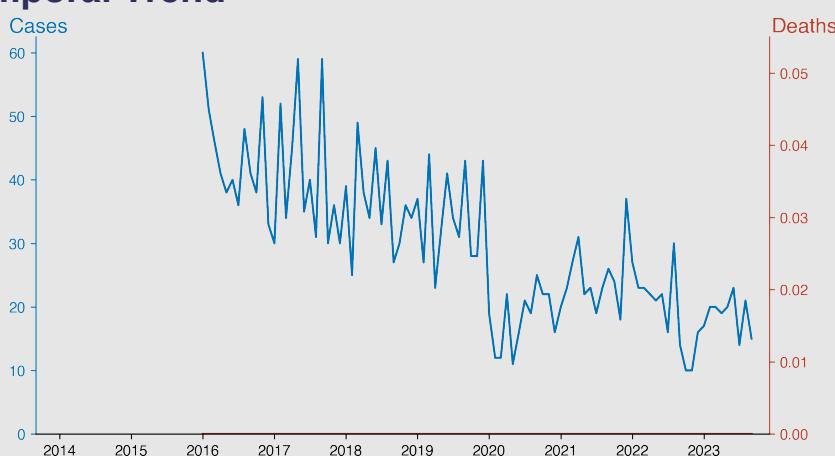
Hepatitis D

September 2023

Introduction

Hepatitis D, also known as delta hepatitis, is a liver infection caused by the hepatitis D virus (HDV), which is unique among the hepatitis viruses as it requires the presence of hepatitis B virus (HBV) to replicate. This means that only individuals already infected with HBV can contract hepatitis D. It can occur either as a coinfection with HBV or as a superinfection in individuals with chronic hepatitis B. Hepatitis D is transmitted through contact with infected blood, needles, and sexual contact, often leading to more severe liver disease than HBV alone.

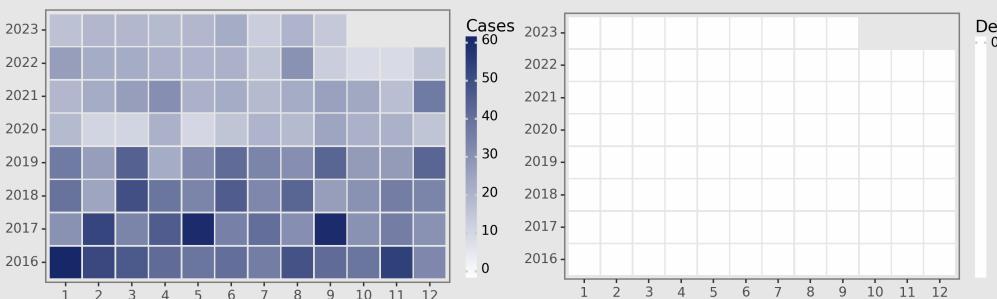
Temporal Trend



Cases Analysis

The reported cases of Hepatitis D in mainland China from January 2016 to September 2023 indicate a general downward trend, with an initial average of 45 cases per month in 2016 gradually decreasing to an average of around 20 cases per month by 2023. There are minor fluctuations observed, such as peaks in May 2017 and September 2017, along with a notable dip starting from January 2020, which could be associated with the impact of the COVID-19 pandemic on surveillance and reporting systems. However, the data reveals no single month with an alarming spike, suggesting controlled transmission of the virus over these years.

Distribution



Highlights

Overall, there is a declining trend in reported cases of Hepatitis D in mainland China from 60 cases in January 2016 to 15 cases in September 2023.

- Despite fluctuations, there is no recorded increase in mortality; all reported cases have zero associated deaths throughout the data period.
- A notable reduction in cases occurred in the year 2020, which suggests either improved disease management or underreporting, possibly due to overlapping healthcare priorities such as the COVID-19 pandemic.
- Since 2020, case numbers have remained relatively low and stable, indicating possible effectiveness of public health interventions or sustained low endemicity in the region.

Deaths Analysis

Throughout the reported period, there is a consistently low mortality rate associated with Hepatitis D cases, with no deaths recorded in any month from January 2016 to September 2023. This persistent absence of fatalities could be indicative of either effective clinical management and treatment protocols for Hepatitis D cases in China, the low pathogenicity of the prevalent Hepatitis D virus strains, or the underreporting of associated deaths. The zero mortality trend in the data requires further investigation to confirm the underlying reasons and to ensure the robustness and completeness of the reporting system.

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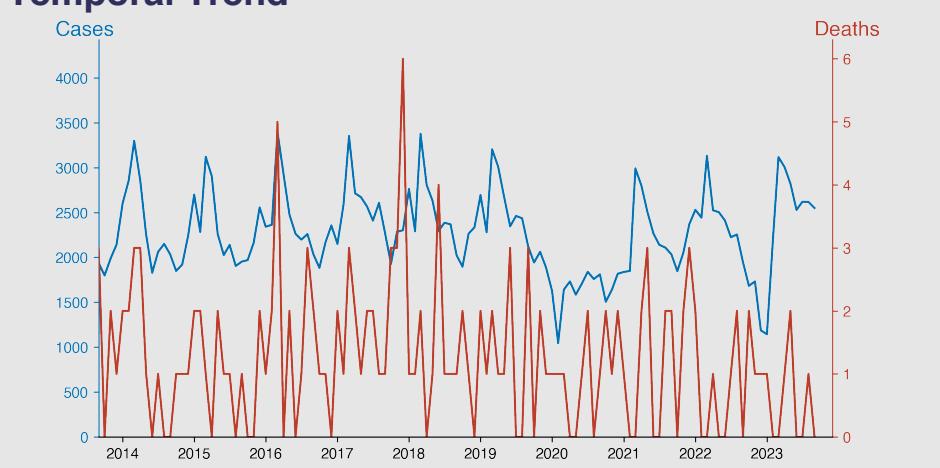
Hepatitis E

September 2023

Introduction

Hepatitis E is a liver disease caused by the hepatitis E virus (HEV), which can cause acute inflammation of the liver. The virus is typically transmitted via the fecal-oral route, through consumption of contaminated water or food. Although it often leads to a self-limiting illness, HEV can cause severe disease or a fulminant hepatic failure, particularly in pregnant women. There are four genotypes of HEV that infect humans, with geographical variations in prevalence. Currently, there is no specific treatment for hepatitis E, and prevention is primarily through improved sanitation and hygiene practices.

Temporal Trend



Cases Analysis

Hepatitis E cases in mainland China showed fluctuating patterns from 2010 to 2023. It's noteworthy that cases usually peaked in the first quarter of every year, especially in March. A significant decrease in cases was observed in 2020, likely due to stringent public health measures instituted due to the COVID-19 pandemic. However, the cases got back to previous numbers by the end of 2021.

Highlights

A steady decrease in the number of Hepatitis E cases in Mainland China was observed from 2010 to 2022, with sporadic peaks in between and a considerable dip in 2020 before a gradual increase in 2021 and 2023.

- The death rate due to Hepatitis E is small and irregular, with no discernable pattern. The highest deaths of 6 in a month were observed in February 2010 and December 2017.

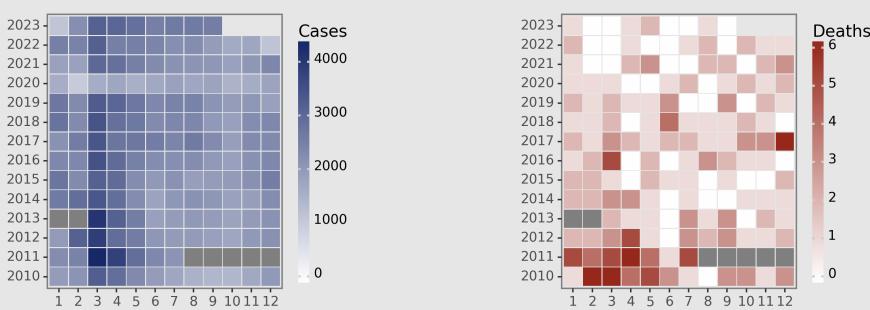
- As of September 2023, there were about 2550 reported cases with zero death, indicating a controlled situation.

- Despite the overall declining trend in cases, consistent vigilance and prevention measures are needed given sporadic increases.

Deaths Analysis

The data indicates a relatively low fatality rate for Hepatitis E across these years. Peaks of deaths were not consistent and occurred at different intervals. The highest count of deaths was observed in February 2010, and December 2017, with 6 instances each. The low death counts throughout the reported period suggest a high survival rate, possibly due to early detection and effective treatment. Interestingly, no significant increase in deaths was observed during periods with higher case numbers.

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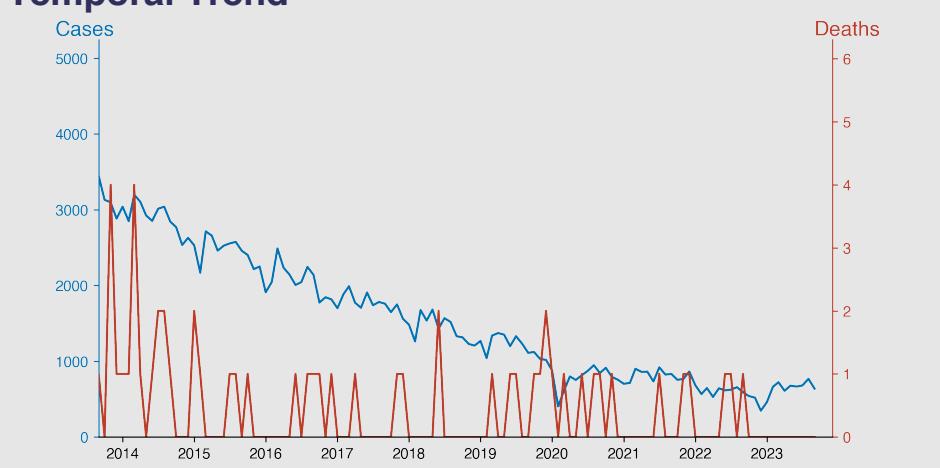
Other hepatitis

September 2023

Introduction

Other hepatitis refers to liver inflammation caused by factors other than the commonly known hepatitis A, B, C, D, and E viruses. It can result from infections, autoimmune diseases, medications, toxins, alcohol, and other less common viruses. These types of hepatitis are less prevalent but can still lead to significant health issues, including chronic liver disease, cirrhosis, and liver failure. Diagnosis often requires a combination of blood tests, imaging, and sometimes liver biopsy, with treatments varying based on the underlying cause. Preventive measures and strategies depend on the specific etiology of the hepatitis.

Temporal Trend



Cases Analysis

The reported data for Other Hepatitis over a span of approximately 14 years (2010-2023) in mainland China shows a consistent, downward trend. A sharp spike can be observed annually around March, which might correspond with Chinese New Year activities. However, the general trend indicates substantial progress in disease control, with reported cases reducing from over 4,000 per month in the initial years (2010-2012) to under 1,000 per month in recent years (2021-2023).

Highlights

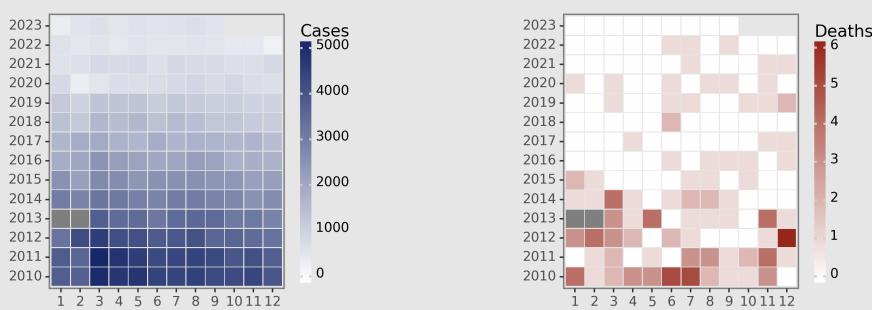
A downward trend of Other hepatitis cases is observed in mainland China from 2010 to 2023, with cases decreasing from above 4000 each month in 2010 to less than 1000 each month in 2023.

- The fatality rate of hepatitis has mostly remained low throughout these years, typically ranging from 0 to 6 deaths regardless of the higher number of cases in early years.
- A noticeable drop in cases is observed in February 2020, which could likely be linked to the strain that COVID-19 pandemic put on the healthcare system and reporting/measuring other diseases.
- The data shows no significant seasonal pattern in the occurrence of hepatitis cases over the years, indicating the disease tends to spread in a consistent pattern throughout all months.

Deaths Analysis

The fatality rate, despite the variation in the number of reported cases, has remained relatively low over the studied period, with an average of 1 death per month. A few outliers are noted, such as December 2012, November 2013, and December 2019, with 6, 4, and 2 deaths respectively. However, from 2020 onwards, the death rate becomes more infrequent and sporadic, reflecting potentially improved health care services and better hepatitis management.

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Poliomyelitis

September 2023

Introduction

Poliomyelitis, commonly known as polio, is a highly infectious viral disease primarily affecting children under the age of five. The poliovirus spreads from person to person and can invade the nervous system, potentially causing irreversible paralysis. While there is no cure, polio is preventable through immunization. The virus typically enters the body through the mouth, proliferating in the intestine, and from there, it can infect the nervous system. Most infected people show no symptoms or exhibit mild, flu-like signs. However, a small proportion of those infected develop severe muscle weakness or paralysis.

Temporal Trend



Cases Analysis

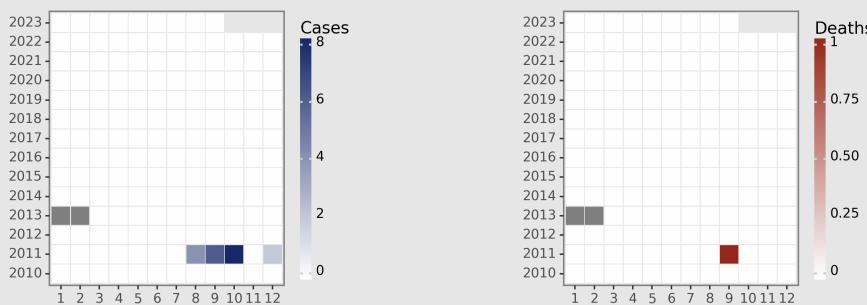
Poliomyelitis (polio) cases in mainland China appear negligible over the given period, demonstrating effective control and prevention measures. Notably, reported polio cases predominantly occurred over a four-month period towards the end of 2011, with the highest cases (8) noted in October 2011. The recorded cases abruptly halted in December 2011 and no other instances emerged over the subsequent decade. This unexpected surge could be attributed to a localized outbreak or enhanced case detection during this period, and the absence of cases thereafter indicates effective response measures, consistent with China's goal for eradicating polio.

Highlights

Mainland China has seen a significant decrease in Poliomyelitis cases over the years.

- The only noticeable outbreak in the provided data was observed in August to October 2011, with a minor case spike in December the same year.
- From 2012 onward, no Poliomyelitis cases or deaths were recorded, suggesting an effective control or eradication of the disease.
- As of September 2023, Mainland China has had no new reported cases or deaths from Poliomyelitis. This indicates successful elimination and prevention programs.

Distribution



Deaths Analysis

Data shows only one reported death from polio over the outlined timeline, which occurred in September 2011 coinciding with the surge of reported cases. The single death showcases the often low mortality rate linked with polio in the presence of proper medical care. Furthermore, the data implies an effective nationwide vaccination program, minimizing the population's susceptibility to the disease and thus controlling fatal instances. The single fatality amid the 2011 spike accentuates the importance of immediate response to potential outbreaks. Future management should continue to emphasize prevention strategies, primarily vaccination.

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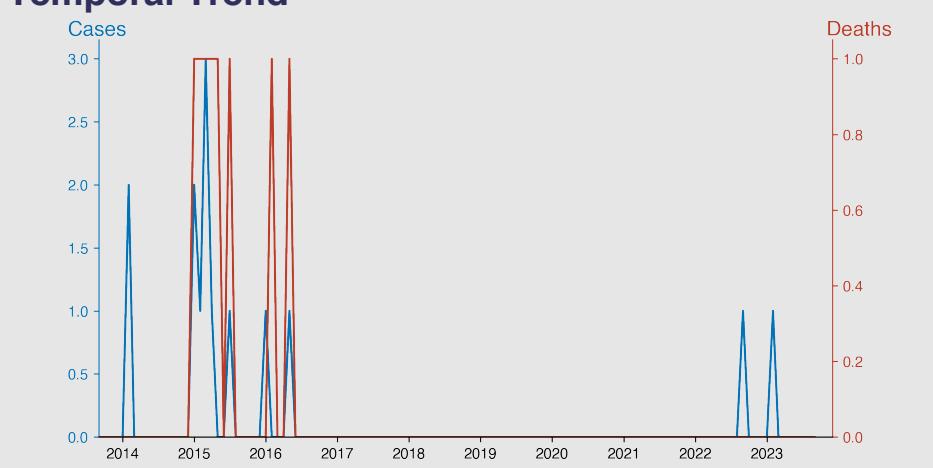
Human infection with H5N1 virus

September 2023

Introduction

Human infection with H5N1 virus, a highly pathogenic avian influenza strain, occurs when the virus crosses the species barrier from infected birds to humans. First identified in 1997 during an outbreak in Hong Kong, the virus has since caused sporadic infections globally, primarily in Asia and the Middle East. Transmission to humans typically involves direct or close contact with infected live or dead birds. H5N1 is concerning due to its high mortality rate in humans and the potential for pandemic spread if it gains the ability to transmit efficiently between people.

Temporal Trend



Cases Analysis

From the data set spanning 2010 to 2023, there were sporadic occurrences of human H5N1 virus infections in mainland China, with most months reporting no cases at all. The periods of 2015 and 2014 saw a slight upsurge, with 2015 having the highest record of cases at 8 in total. Despite these occasional peaks, the general trend depicts a very low prevalence rate for the virus in mainland China, and infection instances are largely isolated.

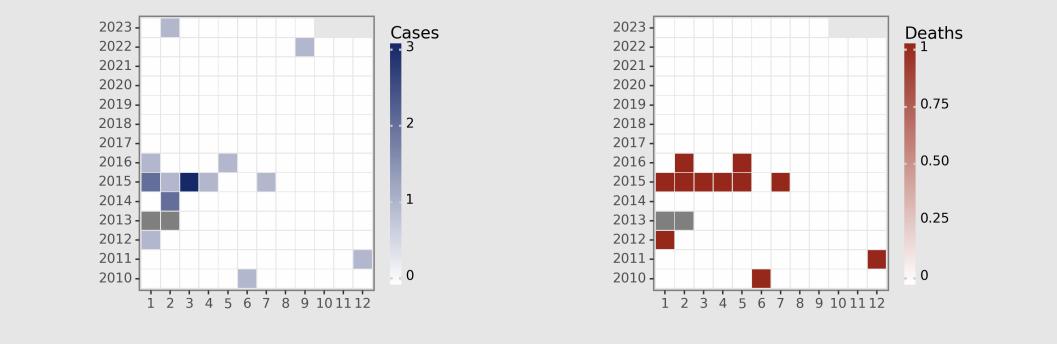
Highlights

- Cases of the H5N1 virus in mainland China display a sporadic and infrequent pattern since it was first recognized in 2010, with a notable absence of consistent outbreaks.
- A particularly high case spike occurred in early 2015, with a total of seven reported infections, some of which led to fatalities. Since 2015, the prevalence has reduced significantly.
 - Since 2018, no H5N1 cases were detected until September 2022, when a single infection was reported, followed by another in February 2023. No deaths were recorded from these cases.
 - As of September 2023, the disease situation sees no active H5N1 infections. The apparent control of H5N1 suggests successful public health measures and control efforts.

Deaths Analysis

The mortality rate from the H5N1 virus in mainland China is conspicuous by its occasional, but not regular occurrence. The years 2010, 2011 and 2012 each have reported death cases. 2015 observed the highest mortality with 4 deaths, however, the succeeding years saw a substantial decrease in deaths. The fatality rate appears sporadic and underscores the relatively low lethality of the H5N1 virus in the given period. The few fatalities coupled with isolated cases depict a scenario where the virus, although deadly, was not a prominent threat.

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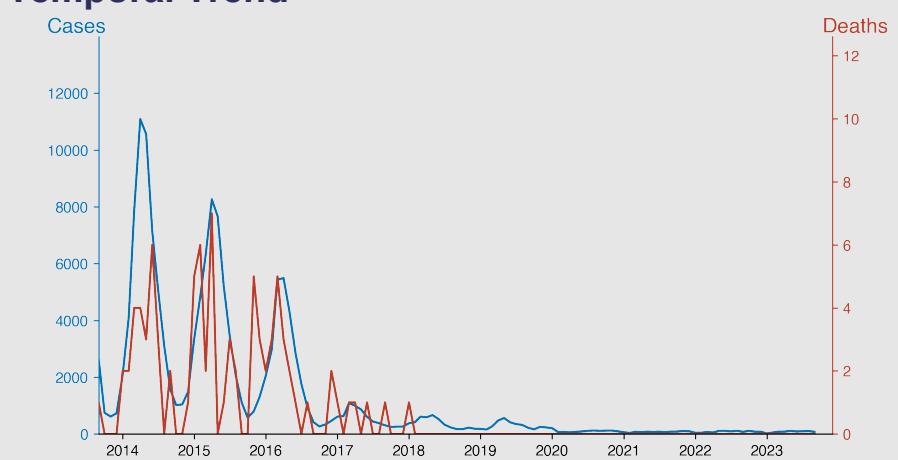
Measles

September 2023

Introduction

Measles is a highly contagious viral disease causing fever, cough, runny nose, inflamed eyes, and a distinctive red rash. It spreads through respiratory droplets from coughs and sneezes. Despite the development of effective vaccines, measles remains a significant cause of death in children worldwide, particularly in areas with low vaccination coverage. Complications can include pneumonia, encephalitis, and subacute sclerosing panencephalitis, a rare chronic inflammation of the brain. Global health efforts focus on vaccination as the primary prevention strategy.

Temporal Trend



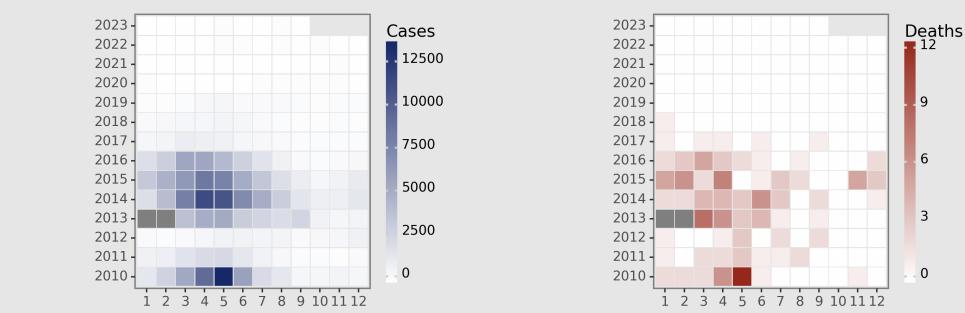
Cases Analysis

The reported measles cases in mainland China present an overall decreasing trend from 2010 to 2023. The largest surge was in 2014, hitting a peak in May with 13,318 cases. Post-2014, there was a year-long decline until the cases rose again in 2015. From 2016 onwards, a consistent decrease in cases can be observed with occasional minor upswings. By 2020, the monthly cases had reduced to double digits, primarily below 200, and this trend continued up to 2023.

Highlights

- There has been a significant decrease in measles cases in China over the past decade, with a high of 13318 cases in May 2010 to just 78 cases in September 2023.
- The drop in measles cases corresponds with a reduction in related deaths, with the last recorded death occurring in December 2016.
- There is a seasonal pattern, with the highest numbers of cases typically occurring in the first half of the year, peaking around April and May.
- As of September 2023, measles appears to be well-controlled in mainland China with a steady state of low-number monthly cases and no recent fatalities.

Distribution



Deaths Analysis

The number of deaths linked to measles presents a generally sporadic pattern. However, the death count remained relatively low throughout the years, from 2010 to 2023, even during periods when the number of cases surged. The highest number of deaths was reported in May 2010 with 12 fatalities. Despite ups and downs in the following years, no deaths were reported post-2016. This suggests increasingly effective treatment and prevention measures over the years.

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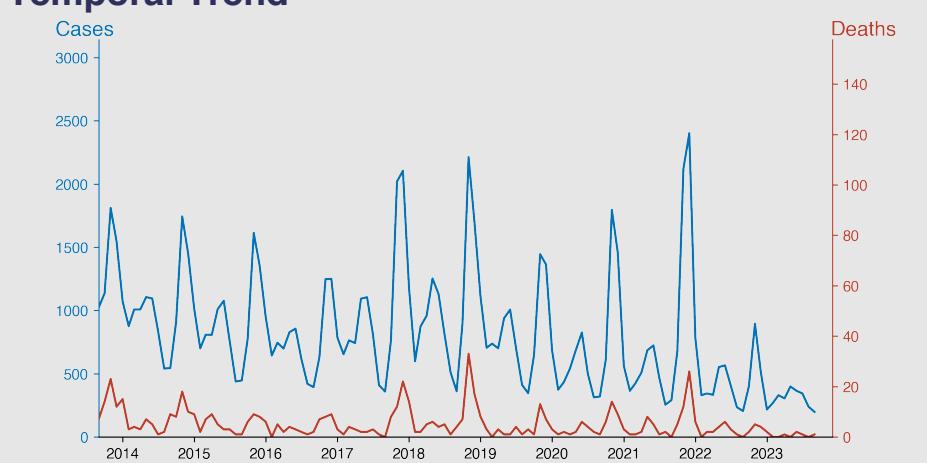
Epidemic hemorrhagic fever

September 2023

Introduction

Epidemic Hemorrhagic Fever (EHF), also known as viral hemorrhagic fever (VHF), encompasses a group of illnesses caused by four distinct families of viruses: Arenaviridae, Filoviridae, Bunyaviridae, and Flaviviridae. These diseases are characterized by fever and bleeding disorders, and can progress to high fever, shock, and multi-organ failure in severe cases. Transmission to humans occurs via contact with infected animal hosts or in some cases, through mosquito or tick bites. Examples of VHFs include Ebola, Dengue, and Lassa fever. These conditions pose significant public health challenges due to their potential for outbreaks and high fatality rates.

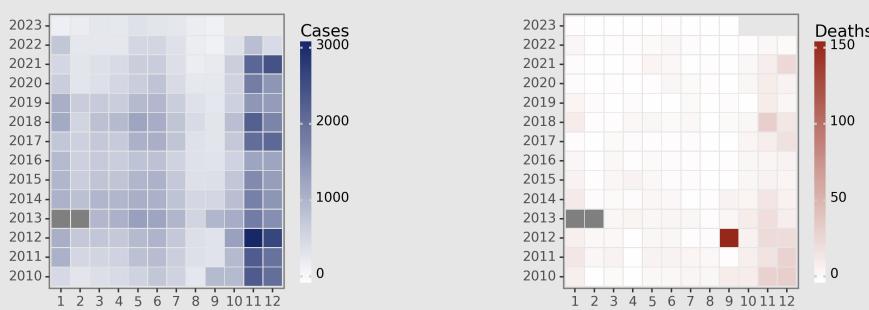
Temporal Trend



Cases Analysis

The reported data shows that cases of Epidemic hemorrhagic fever in mainland China appear to follow a recurring annual trend, with the highest numbers occurring towards the end of the year—particularly in October through December, and the lowest in the start of the year—mainly from January to April. Cases generally rise from around 300-400 in the first part of the year to their high point in thousands by November or December. A spike can be observed in September 2012 with cases reaching 3000. The highest and lowest case count was observed in November 2012 and September 2023 respectively.

Distribution



Highlights

A consistent trend in the data shows a significant increase in Epidemic hemorrhagic fever cases and deaths during winter, specifically in the months of November and December.

- Over the span of 2010 to 2023, there is a gradual decrease in overall reported cases and fatalities each year which signals a positive trend towards epidemic control.
- The highest recorded number of cases and deaths occurred in November 2012 with 3000 reported cases and 25 fatalities.
- As of September 2023, cases have substantially reduced with only 198 reported and a single fatality, suggesting effective control and preventive measures in place.

Deaths Analysis

The death toll due to Epidemic hemorrhagic fever in mainland China, although quite stable, tends to follow a somewhat similar trend as the case counts. Fatalities are typically lower at the start of the year with 0-2 deaths, gradually increasing throughout, and reaching a peak towards November or December. Notably, a significant surge of 150 fatalities was observed in September 2012. The deaths noticeably remain below 35 per month, showing a generally lower mortality rate corresponding to the case counts.

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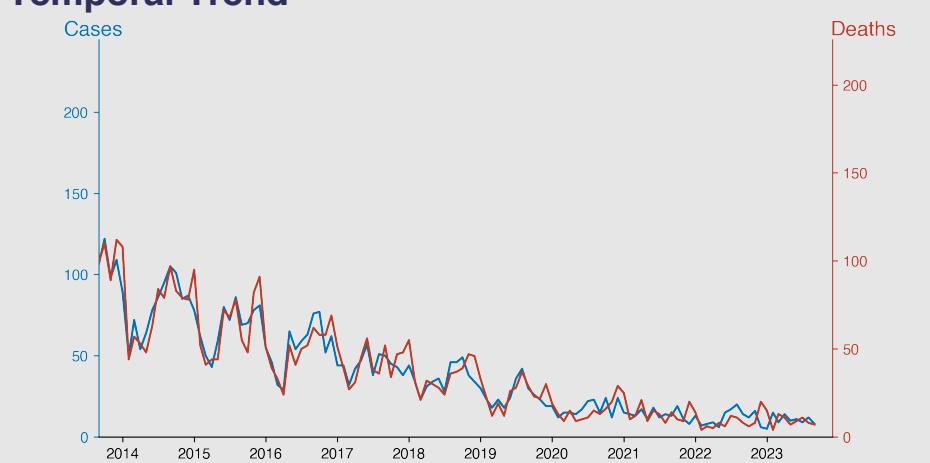
Rabies

September 2023

Introduction

Rabies is a viral disease of mammals most often transmitted through the bite of a rabid animal. It's caused by a lyssavirus that affects the central nervous system, leading to disease in the brain and death. The rabies virus is usually spread through the saliva of an infected animal. Once symptoms appear, rabies is nearly always fatal. Initial symptoms can be flu-like, which progress to neurological problems such as aggressive behavior, hallucinations, and paralysis. Vaccination after exposure (post-exposure prophylaxis) is highly effective. In regions with rabies in wildlife, pet vaccination programs and control of stray animals are essential prevention measures.

Temporal Trend



Cases Analysis

The data reveals a downward trend in the number of reported rabies cases in mainland China from 2010 through 2023. The peak was recorded in September 2010 with 233 cases, while the lowest was 5 in January 2023. A seasonal pattern is also notable, with spikes occurring in the summer and decreases in the winter. The number of cases drastically reduced after 2014, and the rate of reduction became less steep after 2017, indicating some degree of control over the spread of the disease.

Highlights

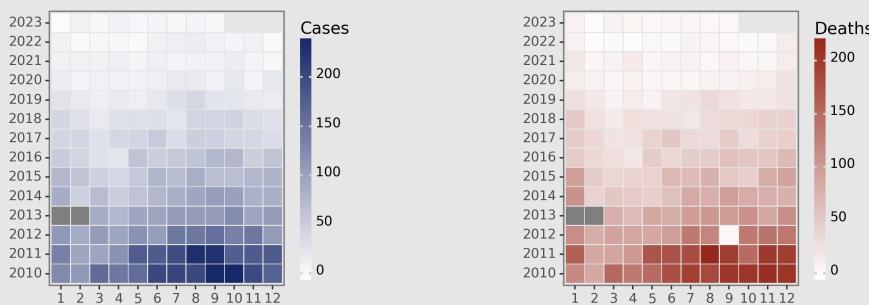
A steady decrease in both reported Rabies cases and deaths observed in mainland China, from high numbers in 2010 to consistently low figures in 2023.

- There is a clear seasonality pattern with peaks during the summer months, particularly evident in the years 2010 and 2011.
- The case fatality rate remains notably high, with the number of deaths closely mirroring the number of cases each month up through 2023.
- As of September 2023, both cases and deaths are relatively low, with 8 cases and 7 deaths reported.

Deaths Analysis

A similar decreasing trend can be observed in the number of deaths due to rabies from 2010 to 2023. The highest number of deaths was 208 in November 2010 and the lowest was 4 recorded in February 2022 and 2023. The correlation between the number of cases and deaths remains relatively high implying a high case-fatality rate. From 2018 onwards, however, the gap between cases and deaths appears to widen slightly, indicating potential improvements in survival rates possibly due to advancements in treatment or early detection.

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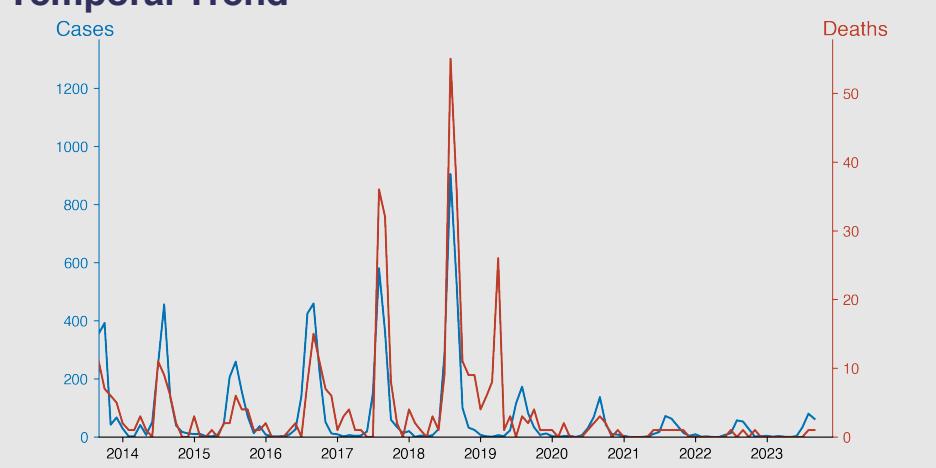
Japanese encephalitis

September 2023

Introduction

Japanese encephalitis (JE) is a viral disease that is spread through the bite of infected mosquitoes, particularly Culex species. The virus is a member of the Flavivirus genus and can cause inflammation of the brain. While most JE virus infections are mild or asymptomatic, a small percentage can result in severe clinical illness, characterized by rapid onset of high fever, headache, neck stiffness, disorientation, coma, seizures, spastic paralysis, and ultimately death. JE is most common in rural agricultural areas of Asia and the Western Pacific. Vaccines are available and are the most effective way to prevent the disease.

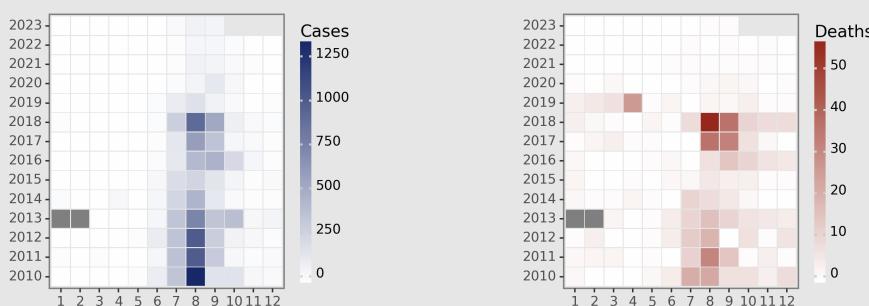
Temporal Trend



Cases Analysis

A retrospective look at the data from 2010 to 2023 reveals considerable variability in the number of Japanese encephalitis cases throughout the years. However, certain patterns emerge. Specifically, a substantial increase in cases is observed from May to September each year, peaking in August. This pattern could be tied to the vector's (mosquito) life cycle and increased human exposure in the warmer months. Notably, the numbers have been decreasing overall since 2018, implying successful prevention or control measures. However, occasional spikes such as in August 2023 stress the need for continued surveillance and proactive public health measures.

Distribution



Highlights

The data shows a cyclical pattern with an increase in Japanese encephalitis cases from June through September each year.

- While the maximum number of cases occurred in August 2010 (1,301 cases), there has been a gradual decline in the maximum number of cases each year, with 80 cases in August 2023.
- The death rate has also declined over time, with the highest reported in August 2018 (55 deaths) and only 1 death reported in September 2023.
- As of September 2023, Japan encephalitis continues to present a significant health burden in China, albeit with decreasing trend in incidence and mortality.

Deaths Analysis

The mortality associated with Japanese encephalitis in mainland China appears to follow a similar seasonal trend as the case count. A noticeable rise in fatalities can be observed from June to September. The highest number of deaths was recorded in August 2018 with 55 fatalities. Appreciably fewer deaths have been reported since 2019, perhaps indicating improved medical management or effective intervention strategies. Nevertheless, the persistent fatality count, even if lower, indicates the high-risk nature of the disease and the need for reinforced efforts towards early detection and treatment.

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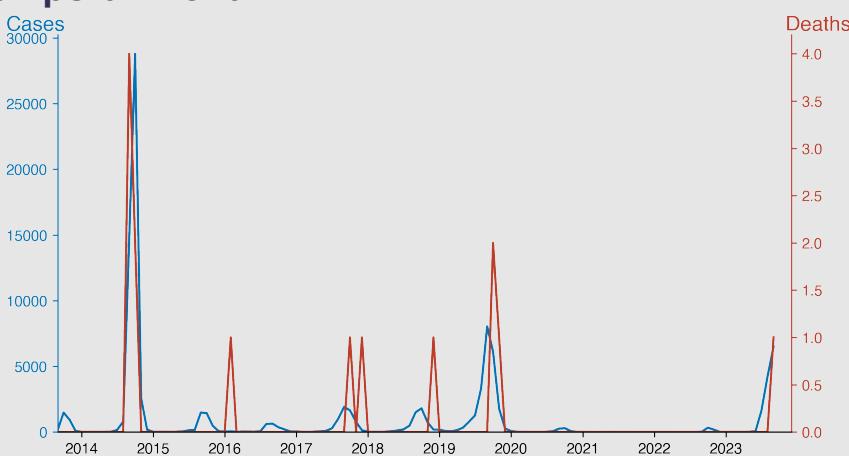
Dengue

September 2023

Introduction

Dengue is a mosquito-borne viral infection found in tropical and subtropical regions around the world, predominantly in urban and semi-urban areas. The dengue virus is transmitted by female mosquitoes mainly of the species Aedes aegypti and, to a lesser extent, Ae. albopictus. Dengue is characterized by flu-like symptoms including high fever, headache, vomiting, muscle and joint pains, and a characteristic skin rash. Recovery typically takes two to seven days. Although most infections result in mild illness, some can develop into severe dengue, which can be fatal if not properly treated.

Temporal Trend



Highlights

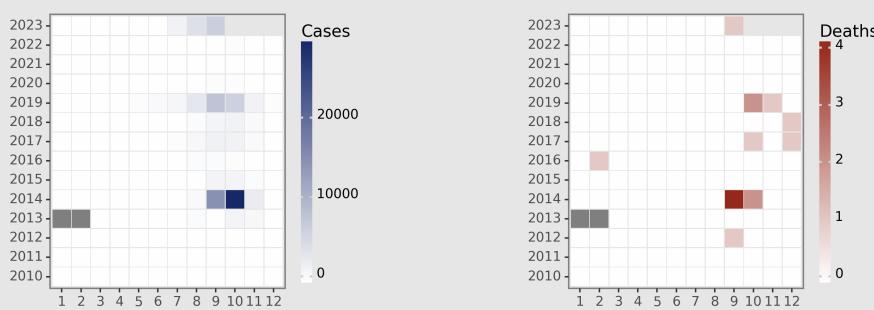
The number of Dengue cases in mainland China shows a significant seasonal trend, with cases typically peaking in the months between July and October.

- A significant drop in the number of cases was observed from 2020 to 2022, but there was a sharp increase in cases starting from July 2023, with a peak in September at 6494 cases.
- There have been a few isolated incidents of deaths due to Dengue, but for the most part, the disease has a low fatality rate in mainland China.
- As of September 2023, the disease situation is concerning due to the recent sharp uptick in cases.

Cases Analysis

Whilst Dengue cases in mainland China are generally low year-round, sharp peaks are evident during the hot and wet months of late summer and early fall, from August to October, reflecting the transmission pattern of the Dengue virus by Aedes mosquitoes. These peak months saw cases rise dramatically every year, most notably in September 2023 with 6494 cases - the absolute maximum. The overall pattern demonstrates a yearly oscillation in case numbers with dramatically enhanced intensity occurring approximately every four years. It should be considered that climate change, alterations in vector control measures, socio-economic growth, and urbanization could impact future transmission.

Distribution



Deaths Analysis

Considering the reported data, Dengue in mainland China seems to exhibit a markedly low case fatality rate. Among all the reported Dengue cases from 2010 to 2023, only eight fatalities were noted. Deaths remained almost consistently at zero throughout the years, with sparse occurrences mostly appearing in the high case count months: September 2012, September and October 2014, October 2017, December 2018, October and November 2019, and September 2023. Despite a dramatic increase in case numbers, the number of deaths remains low, implying an effective healthcare response or a less virulent strain.

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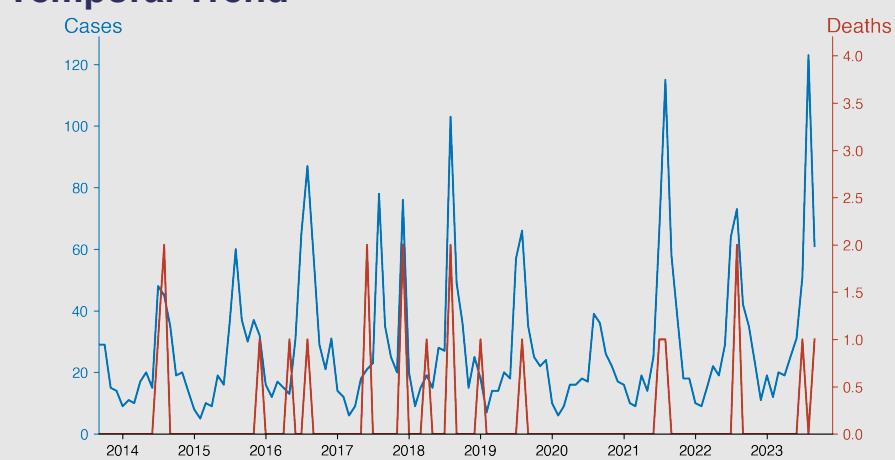
Anthrax

September 2023

Introduction

Anthrax is a serious infectious disease caused by the spore-forming bacterium *Bacillus anthracis*. It most commonly occurs in wild and domestic mammals, such as cattle, sheep, goats, camels, antelopes, and other herbivores, but it can also infect humans when they are exposed to infected animals or tissue from infected animals. Anthrax spores can survive in the environment for years and humans can become infected through skin contact, inhalation, or ingestion. There are three forms of anthrax in humans: cutaneous, inhalation, and gastrointestinal. Anthrax is treatable with antibiotics if caught early.

Temporal Trend



Highlights

There is a clear seasonal pattern in the occurrence of Anthrax, with majority of cases peaking in the summer months (July and August), indicating a pronounced seasonality of the disease.

- In recent years, there has been a worrying upward trend in annual cases, with the highest recorded in August 2023 with 123 cases. This could suggest a rising prevalence and expanding geographical distribution of the disease determining factors.
- The Anthrax fatality rate remains low throughout the years but sporadic fatalities do occur, indicating the requirement for improved case management and public health intervention.
- Considering high peaks of incidence in summer, further research into the reasons (possible relation to livestock exposure, climatic factors etc.) could be of use for preventive strategies.

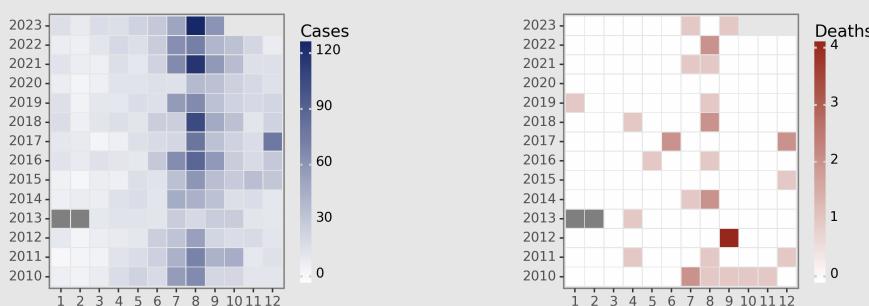
Cases Analysis

The data suggests a seasonal trend in Anthrax cases in mainland China from 2010 to 2023, with a noticeable surge predominantly during the summer months, primarily between July and August. This pattern could potentially correlate to climatic factors favoring bacteria proliferation or changes in human-animal interactions. Over the years, there is a minimal overall rise in cases, exemplified by 66 cases in August 2010 versus 123 in August 2023. This may indicate evolving conditions that need to be investigated further.

Deaths Analysis

The number of reported deaths remains relatively low compared to the number of reported cases of Anthrax, indicating a lower fatality rate. Fatalities also appear sporadic and not directly proportional to the number of cases. For example, even in months with higher cases like August, deaths sometimes show zero and sometimes as high as 2. This suggests effective disease management and treatment strategies. Anomalies such as 4 deaths in September 2012 despite lesser cases pose questions about variable disease virulence, diagnosis, or reporting accuracy to be explored.

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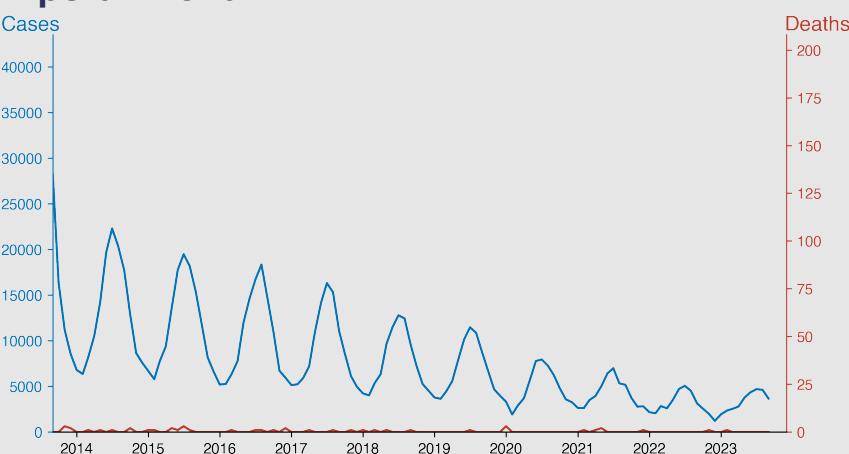
Dysentery

September 2023

Introduction

Dysentery is an inflammatory disease of the intestine, especially of the colon, which results in severe diarrhea containing blood and mucus in the feces. It can be caused by several types of infectious pathogens such as bacteria (Shigella), protozoa (Entamoeba histolytica), parasitic worms, or viruses. The condition is typically spread through contaminated food or water. Symptoms include abdominal pain, fever, and urgent need to defecate. Dysentery can be life-threatening, especially in vulnerable populations like young children and the elderly, if not treated appropriately with hydration and, in the case of bacterial dysentery, antibiotics.

Temporal Trend



Cases Analysis

Over the period from 2010 through 2023, reported cases of Dysentery in mainland China generally followed a seasonal trend, with the highest numbers typically observed from May to September. The peak was in August 2010 with 41,507 reported cases. Despite the seasonal spikes the general trend over these 13 years indicates a decline in reported cases. The highest annual caseload was in 2010 with 225,245 cases, whereas 2023 (until September) saw 28,088 cases indicating a significant decrease in dysentery prevalence.

Highlights

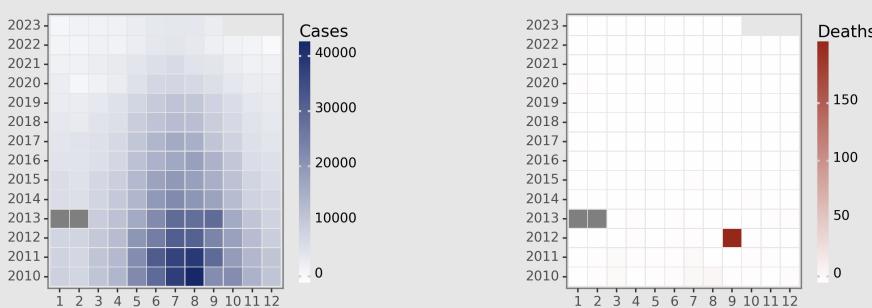
From 2010 to 2023, there's a notable decline in the number of monthly dysentery cases in mainland China, pointing to successful control measures.

- Despite the controlled number of cases, sporadic peaks are evident (e.g., August 2010 with 41,507 cases), signaling potential outbreaks during specific periods.
- The disease showcased a seasonal trend, with most cases appearing from May to August each year, indicating a possible link to seasonal factors.
- The mortality rate appears to be very low, with most months recording zero or one death, evidencing enhanced disease management and treatment.

Deaths Analysis

The number of deaths due to dysentery displayed significant variance, with most months reporting very few fatalities, exceptions being 198 deaths in September 2012 being the highest. Generally, despite variations in the number of cases, the death rates have remained relatively low, suggesting effective medical management of the disease. Besides, a declining number of cases over the years led to fewer deaths overall, reinforcing successful disease control measures in place in mainland China.

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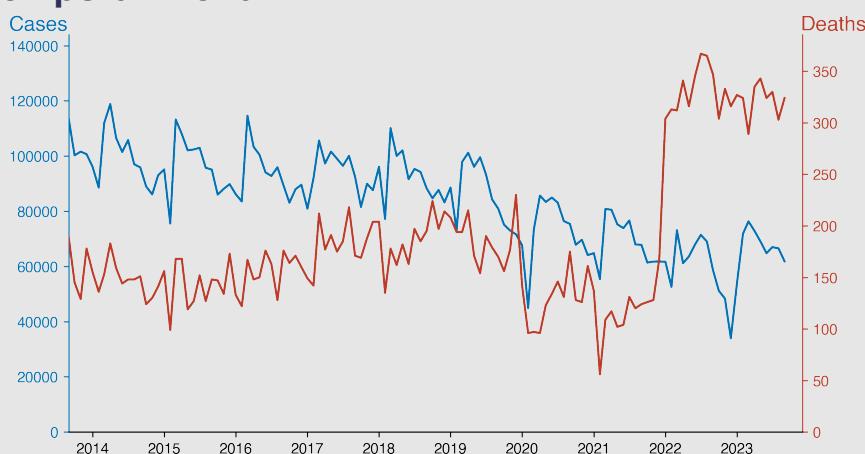
Tuberculosis

September 2023

Introduction

Tuberculosis (TB) is a contagious infection primarily affecting the lungs, caused by the bacterium *Mycobacterium tuberculosis*. It can also impact other parts of the body, including the kidneys, spine, and brain. TB is typically spread through the air when a person with active respiratory disease coughs or sneezes. Many people can harbor the bacteria without symptoms, a condition known as latent TB. When the immune system weakens, latent TB can progress to active TB, which can be fatal if left untreated. Treatment involves a long-term regimen of antibiotics to fully eradicate the infection.

Temporal Trend



Cases Analysis

Based on the provided data, tuberculosis cases in mainland China have shown a general decreasing trend over the observed period from January 2010 to September 2023. Peaks are regularly seen in March each year, suggesting seasonal variations. Nonetheless, the total cases reported from year to year have been steadily decreasing, possibly due to improvements in detection and treatment methods. In particular, a significant drop was observed in 2020, likely due to strict lockdown measures applied to control the COVID-19 pandemic which may have hindered tuberculosis transmission.

Highlights

The data shows a general decrease in both TB cases and deaths in Mainland China from 2010 to 2023.

- Despite the overall decline, there are noticeable seasonal spikes, particularly in the spring (March to May). It's possible that these increases could be linked to varying environmental factors or healthcare system variables.

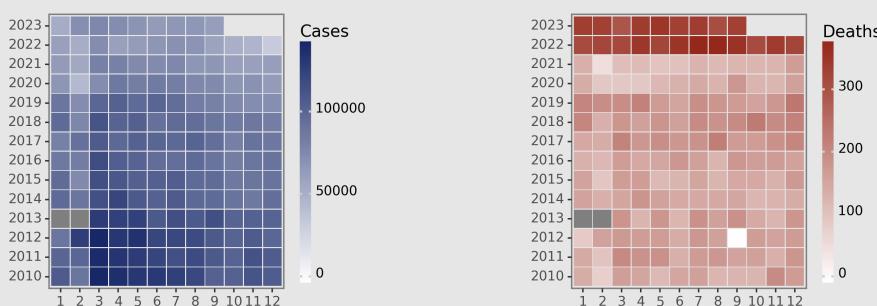
- Starting from 2022, while the number of TB cases continues to decline, death count starts to rise significantly, indicating an increased mortality rate. This needs further investigation for potential causes.

- As of September 2023, the number of TB cases stands at 61,859 with 324 deaths reported, reflecting the continued trend of decreasing cases but an elevated death rate compared to earlier years.

Deaths Analysis

The numbers of deaths due to tuberculosis have remained relatively stable from 2010 to around 2019, despite the decreasing trend of total reported cases. This constancy could imply enduring problems in late diagnosis or treatment effectiveness. However, an unusual increase was observed starting from 2022, which may suggest possible issues within the healthcare system or a change in disease virulence. Further investigation is required to confirm and address these potential problems.

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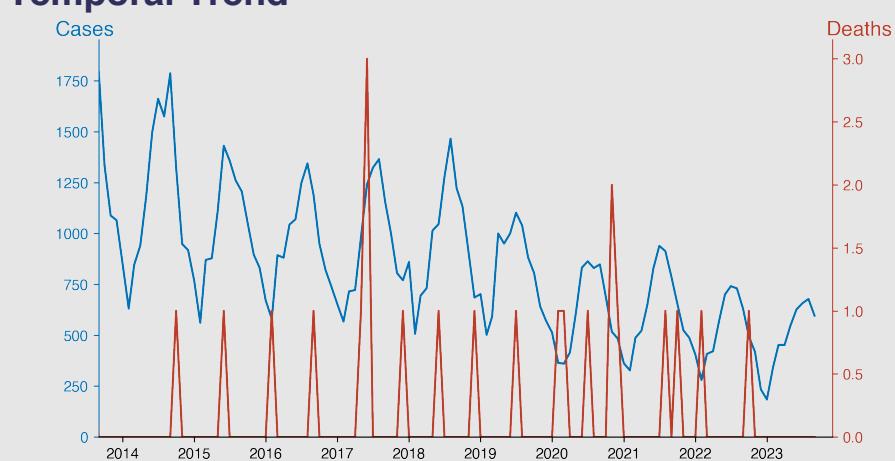
Typhoid fever and paratyphoid fever

September 2023

Introduction

Typhoid and paratyphoid fevers are bacterial infections caused by *Salmonella typhi* and *Salmonella paratyphi*, respectively. These illnesses are typically spread through contaminated food or water and can lead to high fever, diarrhea, and vomiting. Infection can result in severe complications or death if not treated promptly, generally with antibiotics. Typhoid is more prevalent in areas with poor sanitation and limited access to clean water. Vaccines are available for prevention, but they are not fully protective and therefore, maintaining good hygiene practices remains crucial.

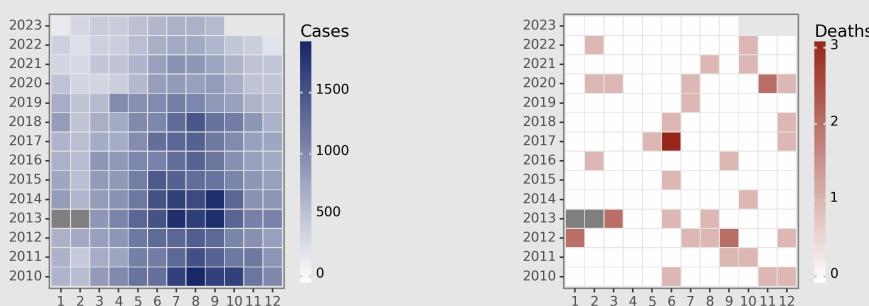
Temporal Trend



Cases Analysis

China's data on typhoid and paratyphoid fever from 2010 to 2023 shows seasonal fluctuations yearly, with an overall trend of gradual decline. The peak numbers are usually recorded in the summer months between June and August, an indicator of the influence of climatic conditions on transmission. Over the years, numbers have been decreasing, suggesting improved public health interventions and improved water and sanitation infrastructure. The year 2010 had the highest count overall, with August recording 1867 cases, while 2023 records significantly fewer cases, with the highest being 678 in August.

Distribution



Highlights

- There has been a notable decline in the number of reported Typhoid and paratyphoid fever cases in mainland China between 2010 and 2023.
- The peak of cases generally appears in the mid-year, specifically around June to August, followed by a gradual decrease towards the end of the year.
- The death rate due to Typhoid and paratyphoid fever remains low, indicating effective medical response, with occasional spike reported in some months.
- As of September 2023, the situation is under control with a reported 596 cases and no deaths, maintaining the downward trend.

Deaths Analysis

In contrast to the case data, death counts remain remarkably low throughout the observation period, indicating a high survival rate. Despite the seasonal fluctuations of caseload, no apparent pattern is noted in the death data. In total, 23 deaths are recorded between 2010 and 2023. The highest count was in 2017 with 4 deaths despite the number of cases not being the highest, suggesting variance in disease severity or treatment efficacy. Zero deaths are frequently observed, pointing to the success of treatment and disease control measures.

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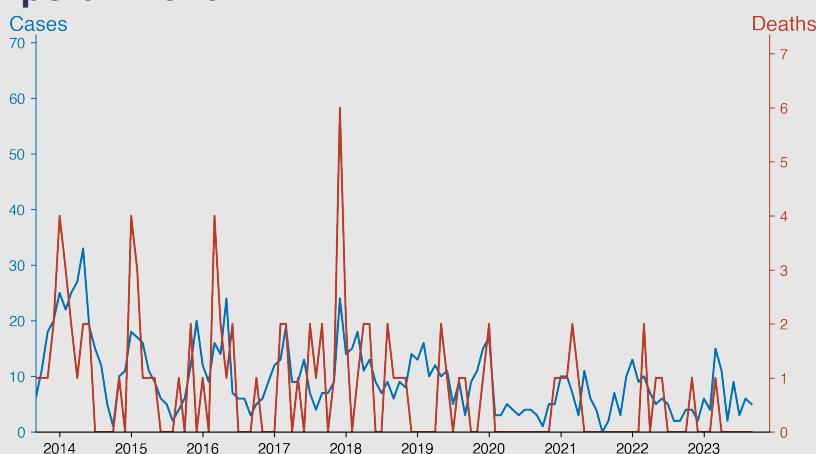
Meningococcal meningitis

September 2023

Introduction

Meningococcal meningitis is a bacterial form of meningitis, a serious infection of the thin lining that surrounds the brain and spinal cord. It is caused by *Neisseria meningitidis*, which can also lead to a life-threatening bloodstream infection called meningococcemia. The disease can progress rapidly, often presenting with fever, headache, stiff neck, and altered consciousness. Vaccines are available to prevent certain types of meningococcal disease, which is spread through respiratory and throat secretions. Early antibiotic treatment is crucial, as the infection can become fatal or cause severe disabilities within hours of onset.

Temporal Trend



Cases Analysis

The data shows a general downward trend in reported cases of Meningococcal meningitis in mainland China from 2010 to 2023. Peaks are seen around the early months of each year, particularly January, February, and March before they start to decrease. It could be associated with climatic suitability for disease spread. Interestingly, a sharp decrease in cases is noticeable from 2020. This could potentially be attributed to enhanced public health measures following the start of the Covid-19 pandemic.

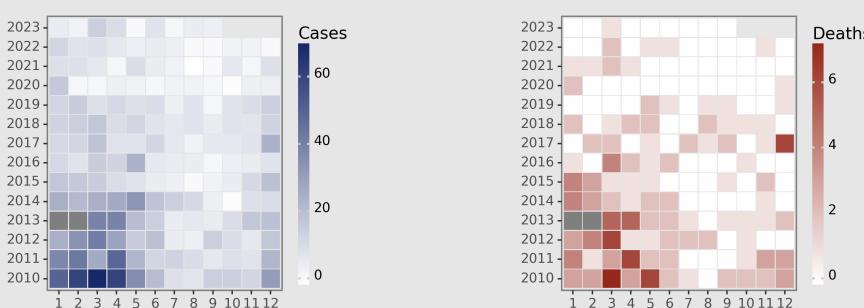
Highlights

- Over 13 years, there's a clear downward trend in Meningococcal meningitis cases in mainland China, from a peak of 68 cases in March 2010 to a low of 2-5 cases in 2023.
- The case fatality rate has generally been low, with single-digit death numbers even when case numbers were high. Deaths in 2023 stand at zero.
- There appears to be a cyclic pattern, with case numbers usually peaking during late winter and early spring months.
- There's a substantial reduction of Meningococcal meningitis cases from 2020, potentially due to improved prevention measures or underreporting during the COVID-19 pandemic.

Deaths Analysis

Similarly, the number of deaths also show a decline over the same period. In the initial years, there seem to be some correlation between the number of cases and deaths, i.e., peak in cases also seeing a slightly increased number of deaths but from 2017 onwards, the parallelism weakens remarkably. The deaths in the period from 2020 onward are significantly reduced, suggesting improved clinical management or earlier detection, aside from the aforementioned public health measures.

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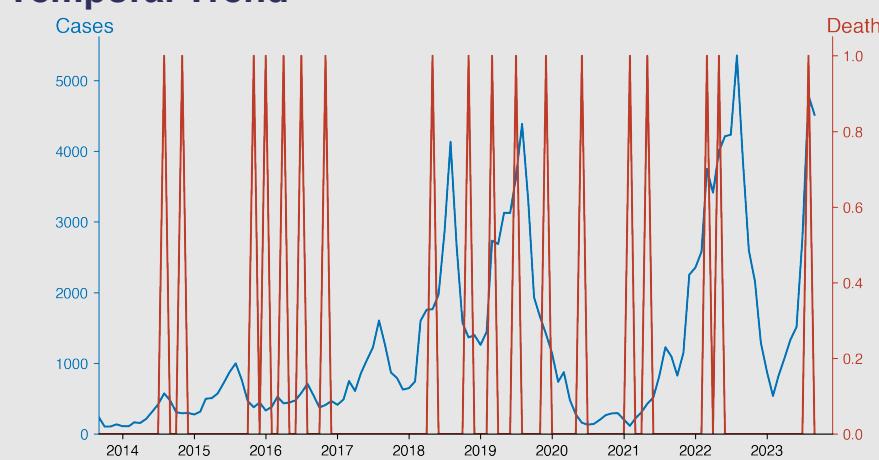
Pertussis

September 2023

Introduction

Pertussis, commonly known as whooping cough, is a highly contagious respiratory disease caused by the bacterium *Bordetella pertussis*. Characterized by severe coughing fits that can end in a "whooping" sound when the person breathes in, the disease can affect individuals of all ages but is particularly dangerous for infants. Vaccination offers effective protection, yet outbreaks still occur, indicating the need for continued vigilance. Pertussis is transmitted through respiratory droplets from coughing or sneezing, and its initial symptoms resemble those of a common cold, followed by a more severe coughing phase.

Temporal Trend



Cases Analysis

The reported cases of Pertussis in mainland China show a fluctuating but generally increasing trend over time. The data for the successive years indicate that the number of cases tends to peak during the summer months, particularly in August. This seasonality may be due to climatic factors conducive to the spread of the disease. The years 2022 and 2023 witnessed a substantial increase in the cases, with August 2022 having the highest number (5355 cases).

Highlights

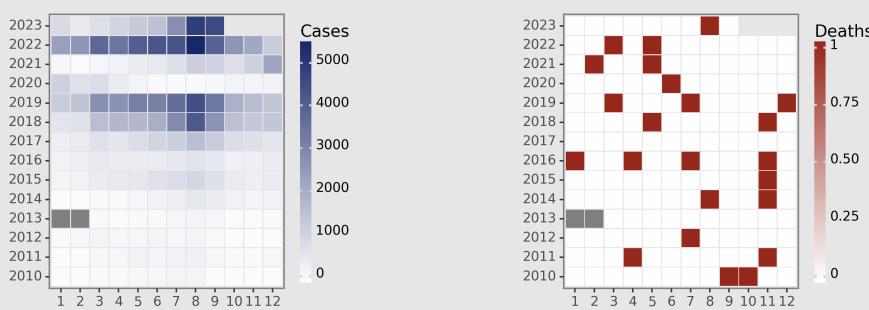
Pertussis cases in mainland China show a fluctuating pattern over time, with dramatic increases during certain periods, such as between 2013-2015 and 2017-2019.

- Despite annual fluctuations, a general upward trend is observed from 2010 to 2023, indicating a progressively worsening situation.
- The data suggests seasonality, with case counts typically peaking during the summer months (June-August) year after year.
- There is a low number of reported deaths, showing that whilst the disease is widespread, it is not commonly fatal. However, fatalities are inconsistently reported, inferring an unpredictable severity trend.

Deaths Analysis

The mortality rate from Pertussis remains relatively low, given the total number of cases reported throughout the years. The data shows sporadic instances of death (only 13 reported in the span of thirteen years), suggesting effective detection and treatment by health officials. Most deaths occurred in the second half of the year, probably due to the high number of infections during those months. However, despite the increasing cases in 2022-2023, the number of deaths did not show a proportional rise, indicating improvements in medical responses.

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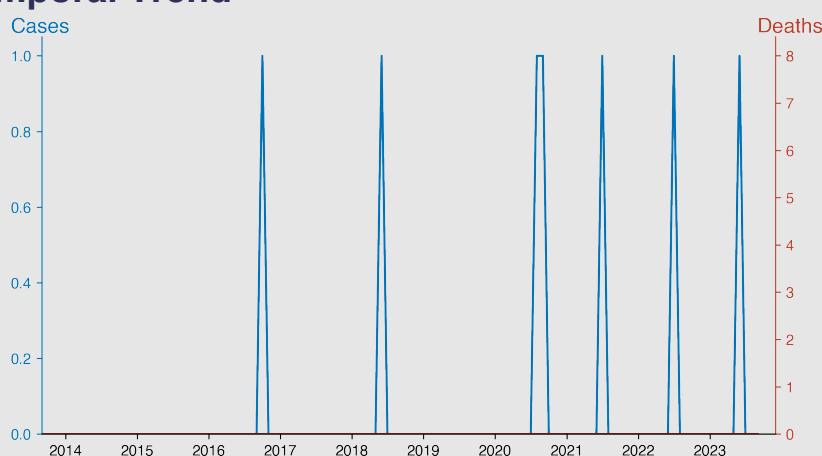
Diphtheria

September 2023

Introduction

Diphtheria is a serious bacterial infection caused by *Corynebacterium diphtheriae*. Spread through respiratory droplets, it primarily affects the mucous membranes of the respiratory tract, creating a thick, gray covering in the throat, leading to difficulty breathing, swallowing, and potentially blocking the airways. Other symptoms include fever, sore throat, and weakness. It can also produce a potent toxin affecting other organs. Vaccination with the diphtheria toxoid is highly effective for prevention, which is included in the routine childhood vaccine schedule. Untreated diphtheria can be fatal, particularly in children.

Temporal Trend



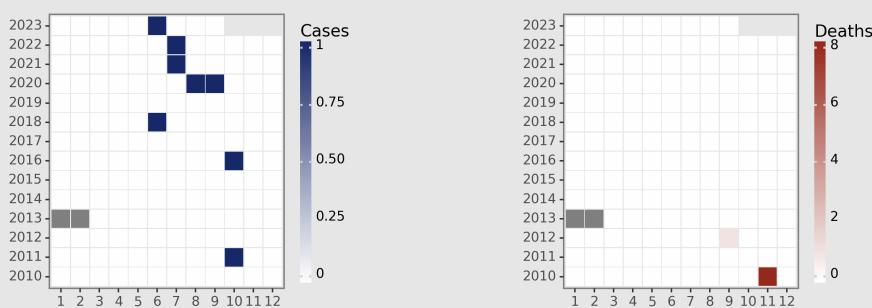
Cases Analysis

The reported data demonstrates an extremely low incidence of diphtheria in mainland China over the examined period (2010 - 2023). Cases surfaced sporadically without any discernible pattern of seasonal or yearly recurrence. Specifically, single case instances were observed in October 2011, October 2016, June 2018, August and September 2020, July 2021, July 2022, and June 2023. The rest of the months within this period recorded no cases. This low prevalence reflects the effectiveness of immunization strategies, reaffirming that diphtheria is effectively controlled in this region.

Deaths Analysis

From the data, overall mortalities related to diphtheria are minimal in mainland China. There were two separate incidents involving a total of 9 deaths in 2010 and 2012, recorded in November 2010 and September 2012 respectively. It is noteworthy that these fatalities occurred in months isolated from case occurrences, indicating possible reporting delays. The absence of deaths subsequent to 2012 signifies advances in disease management. The sustained zero mortalities over an extensive time further affirm that diphtheria poses minimal health threat in mainland China.

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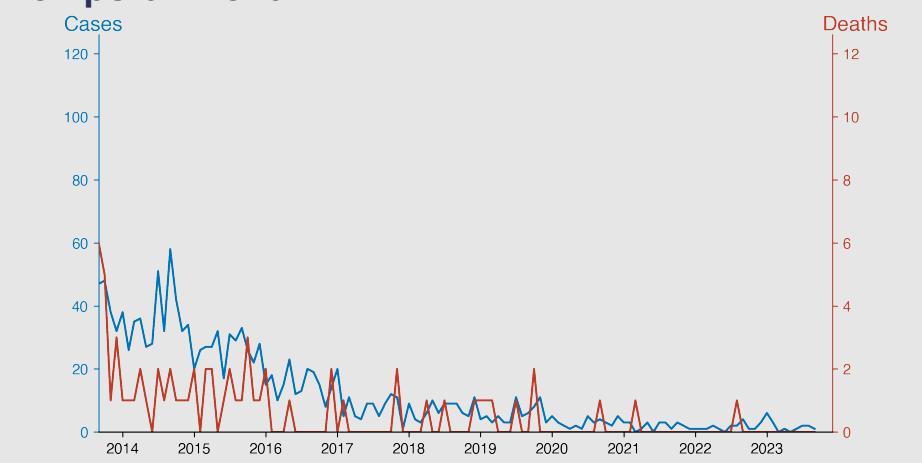
Neonatal tetanus

September 2023

Introduction

Neonatal tetanus is a form of generalized tetanus that occurs in newborns. It typically results from infection of the unhealed umbilical stump, particularly when the umbilical cord is cut with a non-sterile instrument. The disease is caused by the bacterium *Clostridium tetani*, which releases a neurotoxin leading to muscle stiffness and spasms. Without prompt treatment, neonatal tetanus can be fatal due to respiratory failure. It is largely preventable through immunization of the pregnant mother with tetanus toxoid vaccine, which confers passive immunity to the infant.

Temporal Trend



Cases Analysis

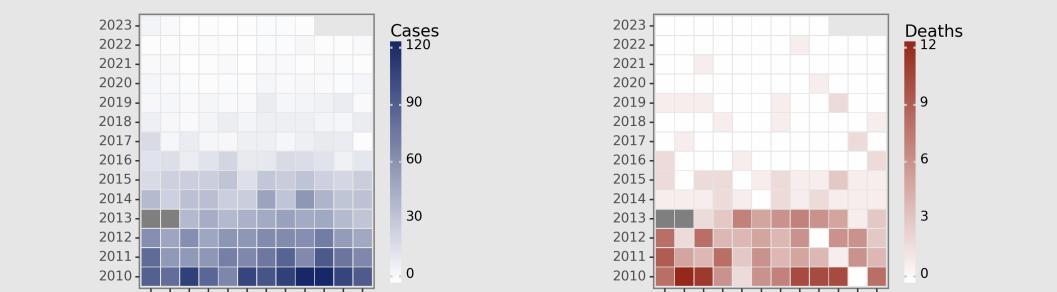
The data suggests a significant reduction in neonatal tetanus cases over the period from 2010 through 2023. In 2010, cases numbered in the high double digits, reaching a peak of 120 in both September and October. This reduced significantly over the years; by 2020, monthly cases were reported in the low single digits, and by 2022-2023, only 1-6 cases were reported monthly. This substantial decrease may be attributed to increased vaccination rates and better hygiene practices in healthcare facilities.

Highlights

There is a significant decrease in the number of cases and deaths from Neonatal tetanus in mainland China from 2010 to 2023.

- Monthly case numbers in 2010 fluctuated around 100, but by 2023, they were more often than not under 5 cases a month.
- The number of fatalities also saw a notable drop, with no reported deaths in recent years since 2018.
- The overall trend indicates effective control and prevention measures against Neonatal tetanus in mainland China.

Distribution



Deaths Analysis

Deaths from neonatal tetanus also appear to decrease over time. Highs of 12 deaths were reported in early 2010, but by 2020, there were months with no recorded deaths. By 2022 and into 2023, only one death was reported in this period. This is likely due to advances in medical treatments, increased access to these treatments, and the overall reduction of cases. However, neonatal tetanus still poses a serious risk given its high mortality rate, particularly in locations with limited access to appropriate healthcare services.

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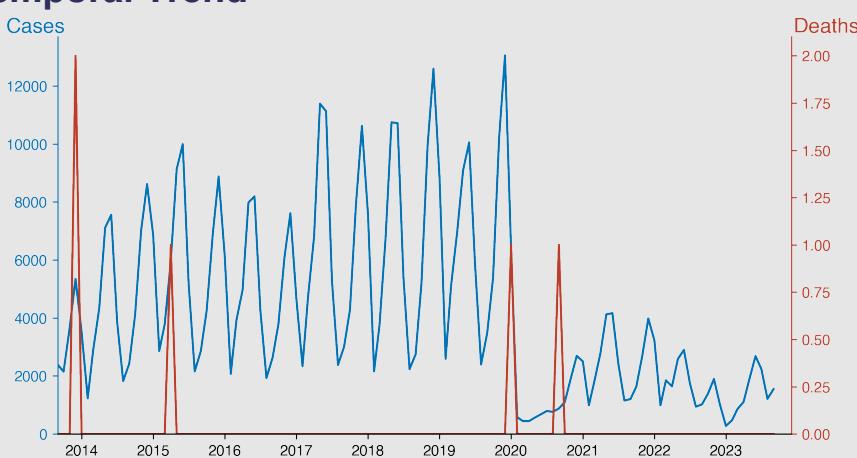
Scarlet fever

September 2023

Introduction

Scarlet fever is an infectious disease caused by a strain of group A streptococcus bacteria, the same that causes strep throat. Primarily affecting children, it is characterized by a bright red rash on the body, often accompanied by a high fever and sore throat. The rash, which feels like sandpaper to the touch, typically begins on the chest and spreads to other body parts. Other symptoms may include a red, bumpy tongue (strawberry tongue) and flushed face. Scarlet fever is treatable with antibiotics, and early treatment is crucial to prevent complications.

Temporal Trend



Cases Analysis

Scarlet fever cases in mainland China appear to have a seasonal pattern, with the highest reported cases generally occurring around the months of May, June, and December. The period between 2010 and 2018 shows a significant increase in cases each year, reaching a peak in 2018. However, a dramatic decline in cases is seen in 2020, likely due to the COVID-19 pandemic and subsequent implementation of restrictive measures. Nonetheless, there was a gradual increase in cases observed since the start of 2021, although the numbers are still relatively lower compared to the pre-pandemic years.

Highlights

Seasonal Patterns: Scarlet fever in China shows strong seasonal patterns, with higher caseloads from April to June and November to January with peak caseloads most often occurring in June and December.

2. Long-Term Trend: The long-term trend shows a significant decrease in cases after 2018, dropping from an average of 4990 cases per month (2010 to 2018) to an average of 1160 cases per month (2019 to 2023).

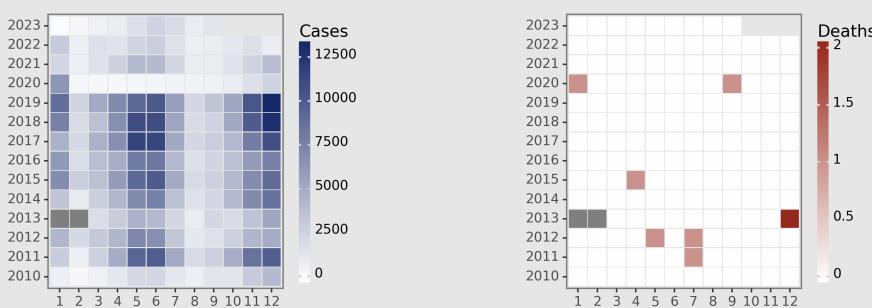
3. Mortality Rates: The mortality rate is generally low, with few recorded deaths throughout the recorded period.

4. Current Status: As of September 2023, scarlet fever shows a slight increase from the previous month, however, overall the numbers remain lower in comparison to the earlier years.

Deaths Analysis

Overall, Scarlet fever has a very low mortality rate in mainland China. Throughout the entire recorded period, only a total of 5 deaths were reported, despite the large number of cases. These deaths occurred in 2011, 2012, 2013, 2015, and 2020. It's important to note, however, that despite its low mortality rate, Scarlet fever can cause severe complications if not treated properly and promptly. Despite the drop in cases in 2020, the disease continues to circulate and remain a potential public health concern.

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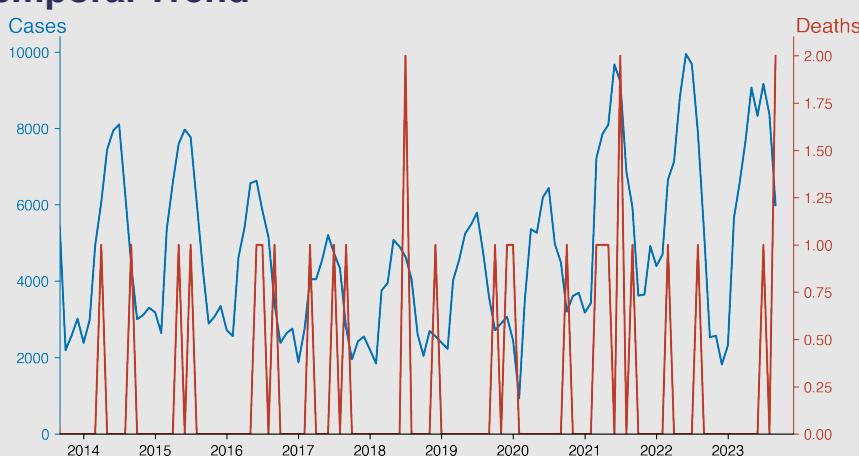
Brucellosis

September 2023

Introduction

Brucellosis is an infectious disease caused by bacteria of the genus Brucella, typically transmitted from animals to humans, primarily through the consumption of unpasteurized dairy products, direct contact with infected animals, or inhalation of airborne agents. It is characterized by fever, sweats, malaise, anorexia, headache, and muscle pain, and can result in more chronic symptoms including arthritis and spondylitis. Though it can affect any organ system, it predominantly targets the musculoskeletal system. Various mammalian species act as reservoirs for Brucella, including cattle, goats, camels, and swine. Prevention strategies revolve around animal vaccination,

Temporal Trend



Cases Analysis

Brucellosis cases from 2010 to 2023 demonstrate significant seasonality in mainland China. The numbers start to rise in March, peaking between May to July, then gradually declining through August into the end of the year. Notably, the number of total cases trend upward over the years, suggesting that control measures may be falling short. The year 2023 shows the highest peak with 9164 cases in July. There's a decrease in cases at the beginning of the year, which could be due to reduced transmission during colder months.

Highlights

Despite the volatile monthly reported cases of Brucellosis from 2010 to 2023, there is a general increasing trend in the number of cases. The highest peak was in June 2022 with approximately 9943 reported cases.

- There is a clear yearly cyclical pattern noticeable, wherein reported cases tend to rise during spring and summer months (from March to August), followed by a decrease in autumn and winter (from September to February).

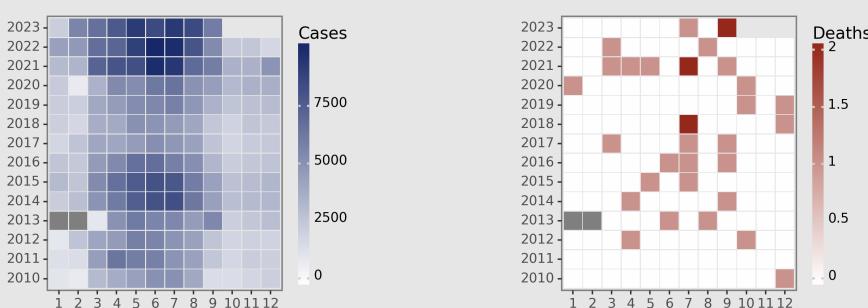
- While the number of reported Brucellosis cases remains high, the reported deaths are very low in comparison. This suggests that while the infection rate may be increasing, the disease is not necessarily causing a proportionate number of deaths.

- As of September 2023, there are 5987 reported cases and 2 reported deaths, indicating the ongoing public health situation in mainland China.

Deaths Analysis

Despite the increasing trend in cases, Brucellosis fatalities remain sporadically low, generally ranging from 0 to 2 deaths throughout the reporting period. This suggests a less virulent strain or effective treatment protocols once diagnosed. However, the presence of isolated fatalities, such as two deaths in September 2023, indicates the potential severity of the disease. It's also important to stress that while the mortality rate is low, the morbidity impact of Brucellosis, leading to diminished quality of life, should not be underestimated.

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Gonorrhea

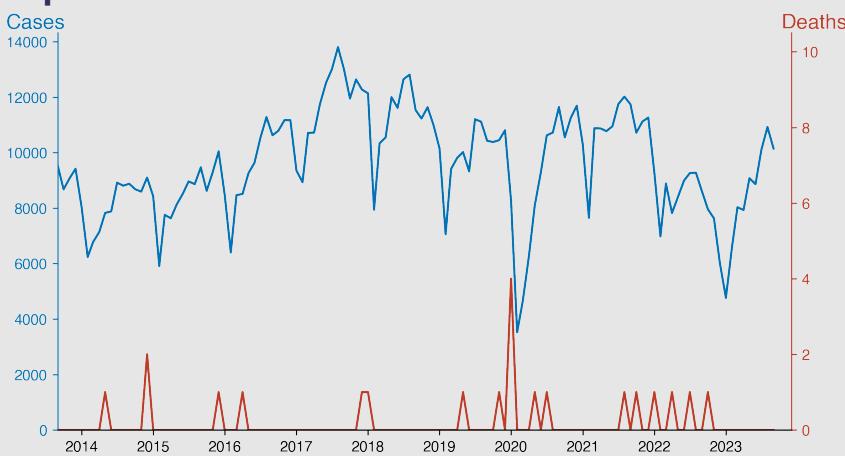
September 2023

Introduction

Gonorrhea is a sexually transmitted infection caused by the bacterium *Neisseria gonorrhoeae*. It affects both men and women, mainly infecting the urethra, rectum, throat, and cervix. Transmission occurs through sexual contact with an infected partner. Symptoms vary, including painful urination, abnormal discharge, and, if left untreated, can lead to severe reproductive complications and increase the risk of HIV transmission. Gonorrhea can be diagnosed with laboratory tests and is treatable with antibiotics, although drug-resistant strains are emerging, complicating treatment strategies.

Preventive measures include safe sexual practices and regular screening.

Temporal Trend



Cases Analysis

The data from 2010 to 2023 shows a general upward trend with an annual oscillation in the number of Gonorrhea cases in mainland China. Interestingly, months from July to December tend to report higher numbers, suggesting a seasonal influence on reported cases. The lowest number of cases reported was in 2020 February (3524 cases), when the entire world was grappling with the onset of the COVID-19 pandemic. Two conspicuous peaks occur in 2016 August (11280 cases) and 2021 August (12019 cases), perhaps indicating a need for utmost public health caution during these months.

Highlights

Cases of Gonorrhea observed a general upward trend from 2010 to 2016, with fluctuations seen in certain months.

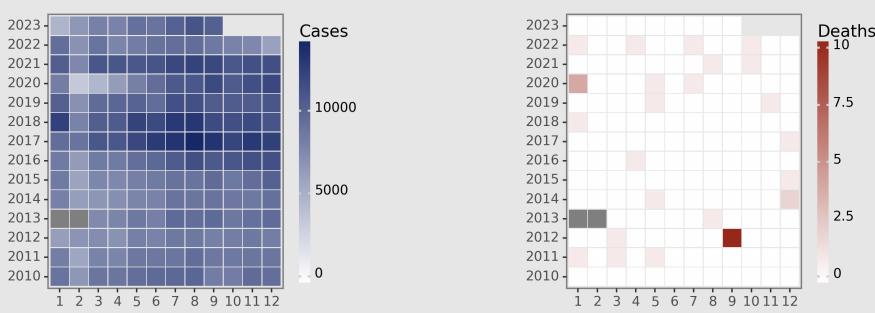
- A steady increase in case count was notable from 2017, reaching a high-point around mid-2017 and maintaining similar levels until 2019.
- A significant dip was observed in 2020, which could be related to changes in social behaviors during the COVID-19 pandemic. However, the numbers started to recover in 2021.

- As of September 2023, the situation seems stable with fewer cases than the previous peak years of 2017 and 2018 but higher than the dip in 2020. Deaths from the disease remain consistently low, suggesting effective clinical management.

Deaths Analysis

The Gonorrhea data reveals an overall low death count. Many cases reported zero deaths. Despite a sporadic increase in deaths over the years with a maximum of four deaths recorded in 2020 January, the causality with Gonorrhea remains unknown as it usually does not cause death directly. The high case-to-death ratio from 2010 to 2023 implies a relatively low mortality rate for Gonorrhea, but underlines the importance of continuous monitoring and management strategies to mitigate wider impacts on public health.

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Syphilis

September 2023

Introduction

Syphilis is a sexually transmitted infection caused by the bacterium *Treponema pallidum*. It presents in stages: primary, secondary, latent, and tertiary. The initial symptom is typically a painless sore or chancre at the infection site. Secondary syphilis may manifest as rashes or mucocutaneous lesions. Untreated, it can enter a latent phase, asymptomatic for years. Tertiary syphilis may occur decades later, damaging the heart, brain, and other organs. Diagnosis is through blood tests or examination of lesion exudates, and treatment is usually with penicillin. Preventive measures include safe sex practices and regular screenings.

Temporal Trend



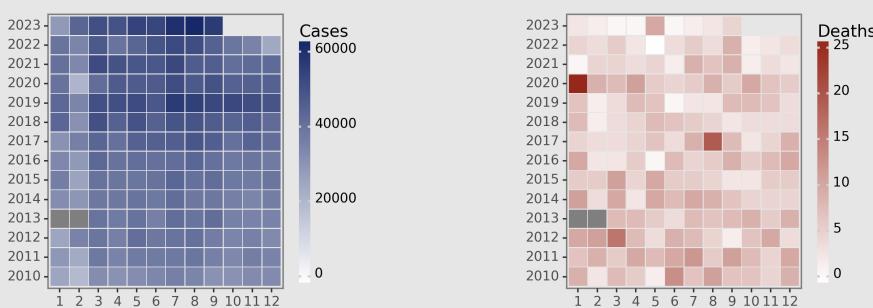
Cases Analysis

The reported data on Syphilis cases in mainland China from 2010 to 2023 shows a general increasing trend in the recorded cases annually. While fluctuating monthly, the overall cases have been rising each year. The highest number of reported cases occurs in August 2023 with 61,068 cases. It is significant to note that some month's data are missing, which may somewhat distort the overall picture. Patterns of increasing cases during certain months, particularly the summer months, suggests a possible seasonal influence on the transmission of Syphilis.

Highlights

- A steady increase in the number of syphilis cases has been observed in China over the past decade, with a noticeable range of 20,000 to 61,000 per month.
- The number of deaths due to syphilis has been relatively low and has only ranged approximately between 0 and 25 deaths per month.
- Monthly cases seem to often peak around mid-year, especially in the month of July. Recent data from 2023 indicates a high of 61,068 cases in August.
- A significant reduction in cases is noticed during winter periods, evidencing seasonality. Notably, December 2022 has the lowest reported number of cases with 24,367 cases.

Distribution



Deaths Analysis

The death rate, in contrast to the number of Syphilis cases, does not follow a consistent upward trend over the years. The recorded deaths remain relatively low compared to the number of cases, with the highest number recorded in January 2020 as 25 deaths. The relatively low death rate indicates that while the disease seems to be prevalent, its fatal consequences are less frequent. Further analysis has to be made to see if this is an indication of successful health measures or due to underreporting of deaths.

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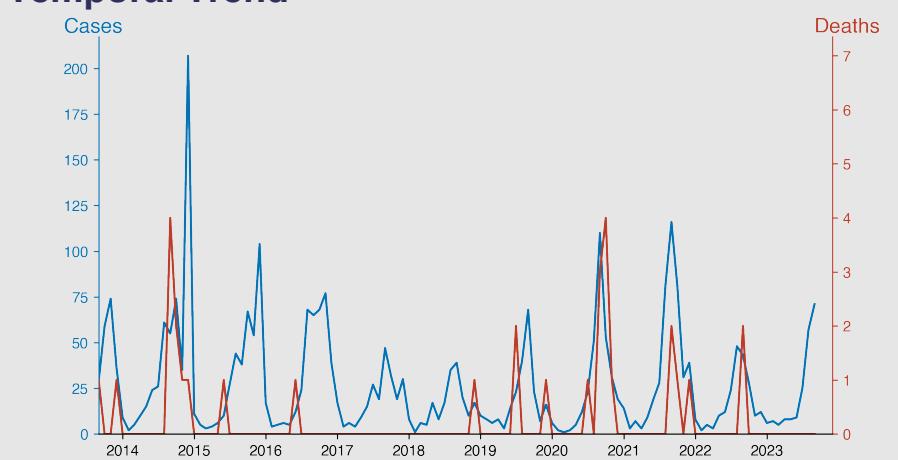
Leptospirosis

September 2023

Introduction

Leptospirosis is a bacterial disease that affects humans and animals, caused by bacteria of the genus *Leptospira*. It is transmitted through direct contact with urine from infected animals or a urine-contaminated environment, often occurring in water. The bacteria can enter the body through cuts in the skin or mucous membranes. Symptoms range from mild flu-like manifestations to severe illness with kidney failure, jaundice, and bleeding. Leptospirosis is a global health concern, particularly in tropical regions and areas with poor sanitation. Vaccines are available for animals, and antibiotic treatment is effective in humans when administered early.

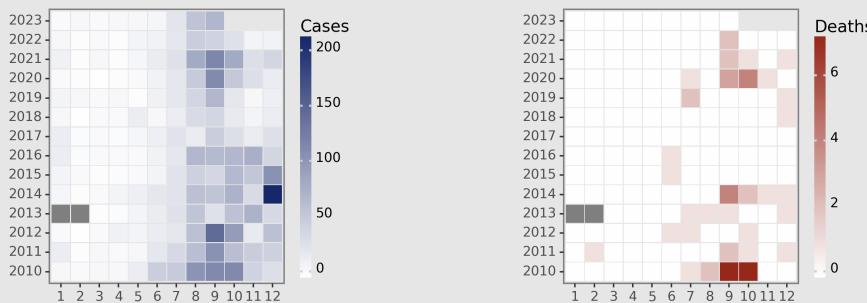
Temporal Trend



Cases Analysis

Between 2010 and 2023, mainland China had sporadic cases of Leptospirosis. Typically, new cases were at a low during the start of the year and rose steadily towards the second half. The most considerable spikes often occurred in September. Some noticeable peaks include September 2010 (112 cases), September 2011 (104), and September 2020 (110). On the downside, the lowest number of cases were often recorded in February, with an all-time low in 2022. Overall, fluctuations across the period show a cyclical pattern, suggesting a possible correlation with climatic conditions or human activities.

Distribution



Highlights

Leptospirosis cases in mainland China peak annually around the late summer/autumn months (August to October), likely correlating with a seasonal influence.

- Despite regular yearly fluctuations in total cases, there has been no significant overall increasing or decreasing trend in the incidence of Leptospirosis from 2010 to 2023.
- Fatality numbers remain relatively low compared to the total number of cases, suggesting a reasonably low case fatality rate.
- As of September 2023, the total leptospirosis cases recorded were 71 cases with no deaths, aligning with normal seasonal trends and displaying no apparent health crisis.

Deaths Analysis

Over the same period, deaths were few but shared a similar pattern with cases, notably peaking during the autumn or late summer season. The highest fatalities were recorded in September and October of 2020, both recording seven deaths each. Deaths remained null or rare during the first half of the year, especially January and February. The total deaths were significantly lower compared to total cases, implying effective medical intervention and response for leptospirosis in mainland China. However, the periodic rise in fatalities still calls for improved prevention strategies during risk-prone months.

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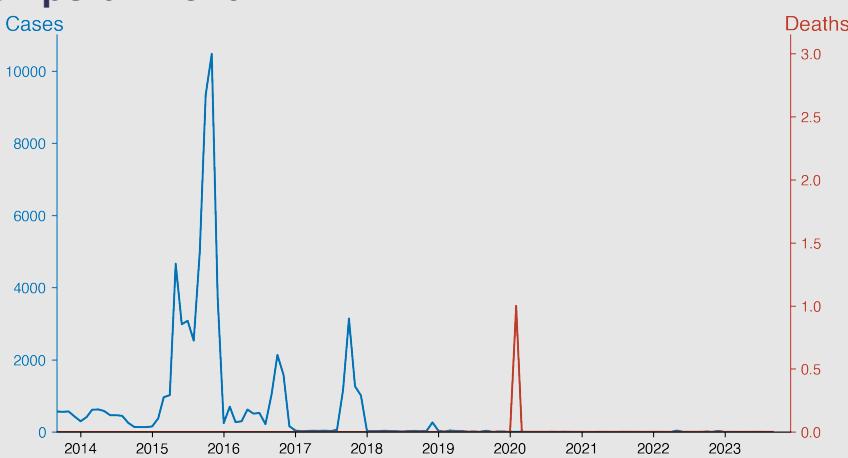
Schistosomiasis

September 2023

Introduction

Schistosomiasis, also known as bilharzia, is a parasitic disease caused by trematode worms of the genus Schistosoma. Transmitted through exposure to freshwater contaminated by the worms' larvae, it primarily affects the urinary tract or intestines. People become infected when larval forms of the parasite, released by freshwater snails, penetrate the skin during contact with infested water. Chronic infection can lead to liver damage, kidney failure, infertility, or bladder cancer. Schistosomiasis is endemic in tropical and subtropical regions, with significant health impacts in some of the world's poorest communities.

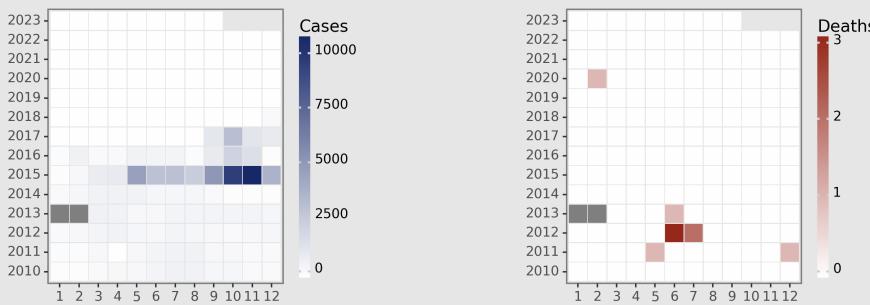
Temporal Trend



Cases Analysis

From the provided dataset, we can deduce that schistosomiasis cases in mainland China fluctuate with high and low extremes. From 2010, there has been a steady rise in reported cases per month, peaking dramatically in 2015 with a high of 10481 cases in November. This surge was followed by a considerable decrease. By 2017, the numbers had drastically dropped to hundreds and tens, with a notable spike in October (3144 cases). However, since then, there has been an ongoing downward trend, with recent years, such as 2023, reporting single-digit cases.

Distribution



Highlights

- There has been a drastic decrease in the number of Schistosomiasis cases in mainland China from 2010 through 2023, indicating successful control measures.
- Significant peaks were observed in 2015 with a high of 10481 cases in November but then followed a sharp decline, probably due to large-scale interventions.
- Fatalities have remained extremely low, suggesting effective clinical management of detected cases.
- As of September 2023, the Schistosomiasis situation in China appears to be well under control, with a month average of under 10 cases and no reported deaths.

Deaths Analysis

The death toll due to Schistosomiasis in mainland China is relatively low respective to the number of reported cases. Out of the total reported cases from 2010 - 2023, deaths occurred in just 7 months. The highest number of deaths was reported in June 2012 with 3 fatalities. It can be concluded that a robust healthcare system and early diagnosis probably contributed to a low mortality rate, despite the significant number of infections in some years.

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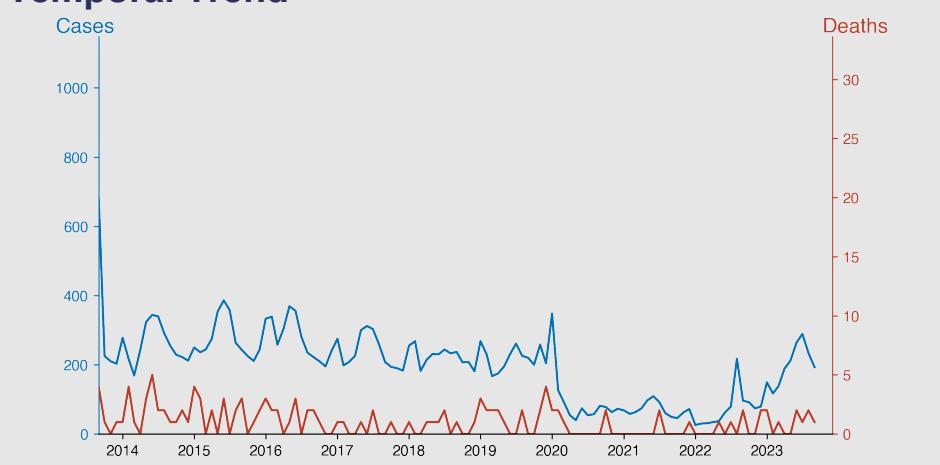
Malaria

September 2023

Introduction

Malaria is a life-threatening disease caused by parasites that are transmitted to people through the bites of infected female Anopheles mosquitoes. There are four main types of malaria-causing parasites: Plasmodium falciparum, P. vivax, P. malariae, and P. ovale, with P. falciparum being the most deadly. Once inside the human host, the parasites multiply in the liver before infecting and destroying red blood cells. Symptoms include fever, headache, chills, and vomiting, and can appear several days after the mosquito bite. If not treated promptly with effective medication, malaria can be fatal.

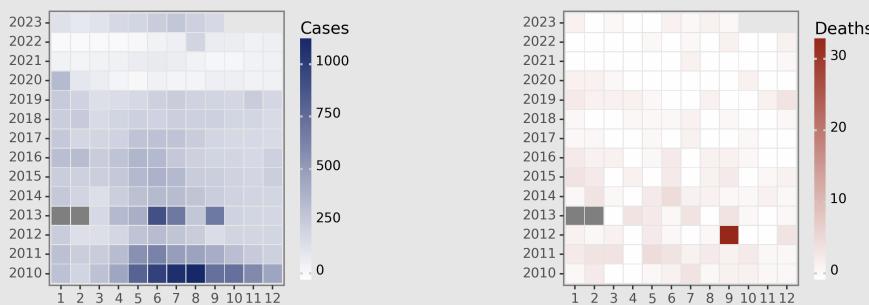
Temporal Trend



Cases Analysis

The Malaria cases in mainland China depict a considerable fluctuation over a period of 13 years, yet there is an overall decreasing trend. A high number of cases were reported in 2010, recording a peak of 1094 cases in August 2010. However, the numbers had a noticeable decline after 2010 and then maintained relatively lower rates constantly changing from 2012 until recent years. The significant drop in 2020, with numbers going below 100, is notable, which might be contributed by stringent health measures due to the COVID-19 pandemic. A slight increase can be observed from 2021, but the figures were still kept below 300 till 2023.

Distribution



Highlights

- The number of Malaria cases in mainland China has generally decreased over the years, from report highs in 2010 to significantly lower figures in 2023.
- Despite some yearly fluctuation and an observed increase in 2022, the overall case frequency still shows a downward trend.
- Mortality due to malaria is relatively low and fluctuates minimally, with no significant increase or decrease over the years.
- As of September 2023, the number of reported cases is 193 with 1 reported death, which aligns with the trend of decreasing cases, despite the slight increase reported in 2023.

Deaths Analysis

Despite fluctuations in the number of cases, the death toll remained relatively low throughout the years with one exceptional surge to 32 deaths in September 2012. Most months reported an average death count of less than 5. No significant pattern can be identified in the distribution of deaths. The highest number of deaths registered each year has been decreasing progressively from 2010 onwards, indicating potentially improved treatment strategies or more extensive preventative measures. By 2020, there were some months where no deaths were reported, indicating progress in Malaria management in China.

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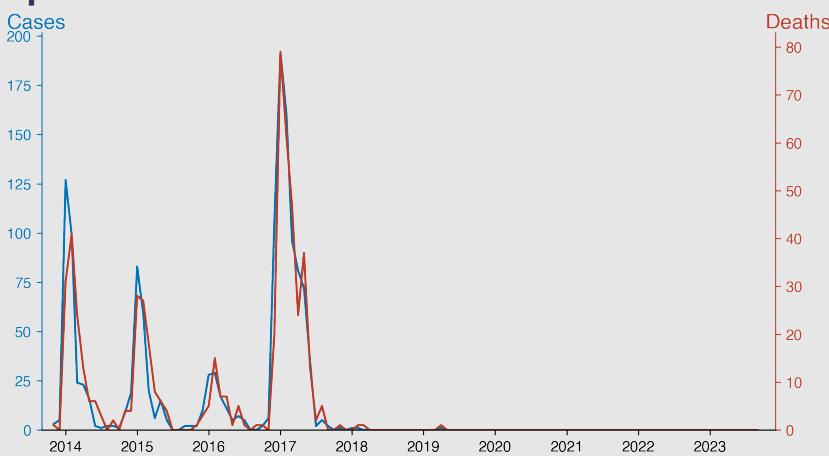
Human infection with H7N9 virus

September 2023

Introduction

Human infection with the H7N9 virus, a subtype of influenza A, was first reported in China in March 2013. This avian-origin virus primarily affects birds, but it has shown the capability to infect humans, leading to severe respiratory illness. Most cases have been linked to exposure to live poultry markets or contact with infected animals. While H7N9 does not currently appear to transmit easily from person to person, there is concern about the potential for the virus to mutate and gain this ability, which could lead to a pandemic.

Temporal Trend



Cases Analysis

The H7N9 virus in mainland China reached its peak incidence during January and February of 2017, with 192 and 160 cases respectively. The years 2013 to 2017 marked active transmission periods, highlighted by prolonged winter-spring epidemics. A dramatic decline post-2017 suggests successful containment measures or virus pattern changes. The dramatic reduction to zero cases since March 2018 implies effective public health interventions or potential under-reporting.

Highlights

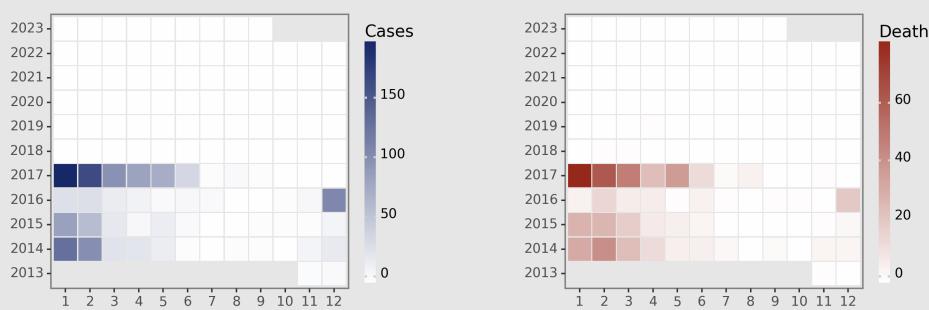
The H7N9 virus in mainland China showed periodic spikes in human cases and deaths, particularly noticeable during early 2014 and early 2017, suggesting a possible seasonal pattern.

- Since the peak in 2017, there has been a significant decline in both cases and deaths, with occurrences dropping to zero from the start of 2018 through September 2023.
- No cases or deaths were reported for over 5 years, indicating successful control measures or a potential end of the transmission cycle in humans.
- Vigilance is still required to monitor for any possible resurgence, considering the historical pattern of sporadic outbreaks.

Deaths Analysis

Mortality associated with H7N9 peaked concurrently with cases, particularly in January and February of 2017, recording 79 and 61 deaths, respectively. The high case fatality rates in the early months of 2014 and 2017 suggest a virulent strain. Deaths also ceased from March 2018 onwards, mirroring the decline in reported cases. The trend denotes either the impact of control strategies or possible shifts in reporting and surveillance sensitivity.

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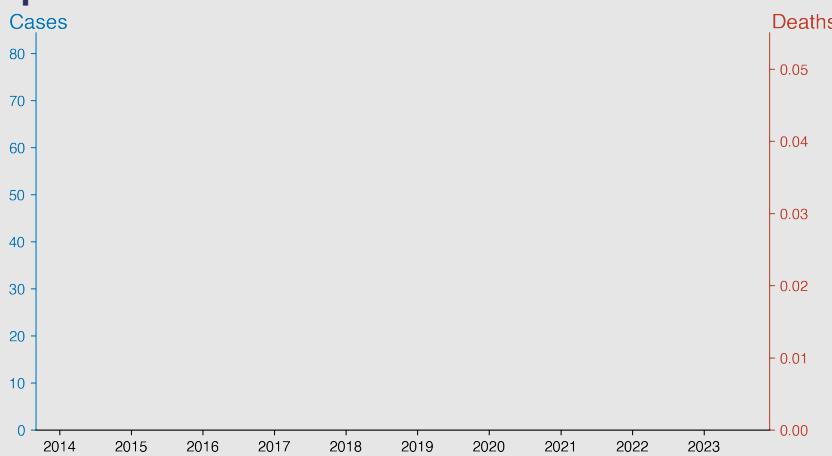
Monkeypox

September 2023

Introduction

Monkeypox is a zoonotic viral disease caused by the monkeypox virus, which is part of the same family of viruses as variola virus, the agent responsible for smallpox. It was first identified in 1958 in monkeys kept for research, with the first human case recorded in 1970. Monkeypox occurs primarily in central and western African countries, with occasional outbreaks elsewhere due mainly to international travel or animal imports. Transmission can occur through contact with infected animals, humans, or contaminated materials, with symptoms resembling smallpox, although generally less severe. Vaccination against smallpox has been shown to be protective against monkeypox.

Temporal Trend



Cases Analysis

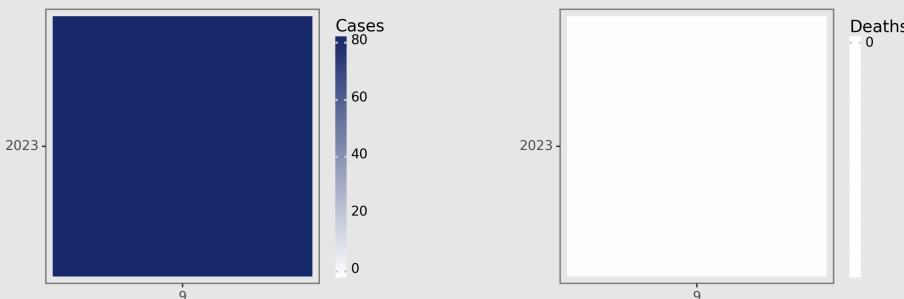
In September 2023, mainland China reported a total of 80 cases of Monkeypox. Such figures represent real-time tracking of disease prevalence, albeit without historical data, it's difficult to contextualize the trend. The number could indicate either a contained outbreak, a rise, or a decline in cases. Given that Monkeypox is generally a self-limiting disease with symptoms lasting 2-4 weeks, the current caseload should precipitate targeted containment strategies, monitoring of contacts, and perhaps vaccination of high-risk individuals, if available and deemed necessary.

Highlights

As of September 2023, mainland China has reported 80 confirmed cases of Monkeypox with no associated fatalities.

- This data indicates that while the virus is present and leading to infections, the current outbreak appears to be contained without mortality, suggesting effective management of severe cases.
- The health authorities may have implemented efficient diagnostic, isolation, and care procedures to mitigate the spread and impact of the disease, given the low case number and absence of deaths.
- Ongoing surveillance, public health measures, and possible vaccination campaigns should be observed for insights into China's strategies to maintain control over Monkeypox outbreaks.

Distribution



Deaths Analysis

The reported data for September 2023 shows zero deaths from Monkeypox in mainland China, suggesting either a non-lethal strain of the virus or an effective healthcare response. The fatality rate of Monkeypox varies by strain, with the Congo Basin clade having a higher lethality compared to the West African clade. The absence of fatalities might also imply timely diagnostics, adequate medical care, and possible access to antivirals that are being used in other regions. This would likely contribute to a positive prognosis for those infected. Nonetheless, ongoing surveillance is essential to manage the disease effectively.

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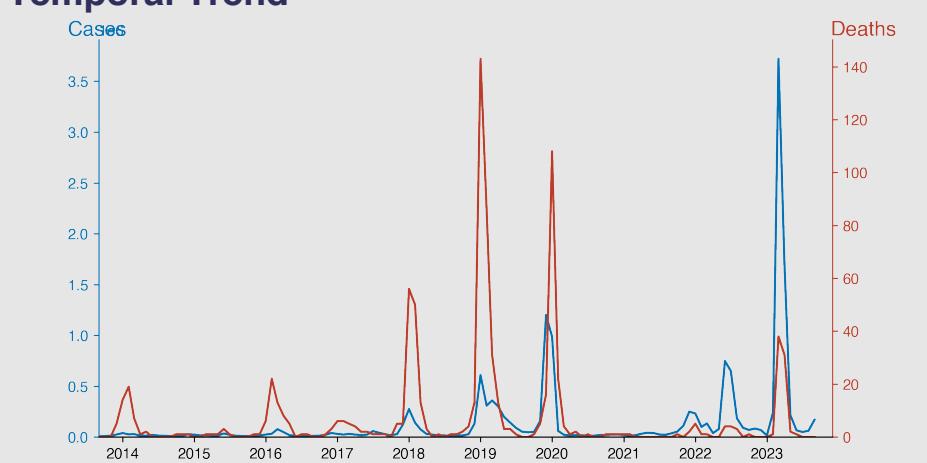
Influenza

September 2023

Introduction

Influenza, commonly known as the flu, is an infectious respiratory illness caused by influenza viruses. It affects the nose, throat, and sometimes the lungs. Symptoms can range from mild to severe and typically include fever, cough, sore throat, muscle aches, and fatigue. Influenza spreads from person to person primarily via respiratory droplets. It can lead to complications, especially in high-risk groups. Annual vaccination is the primary prevention strategy. Antiviral medications are available for treatment. Flu outbreaks occur yearly, usually in cooler months, and can sometimes lead to pandemics with widespread illness.

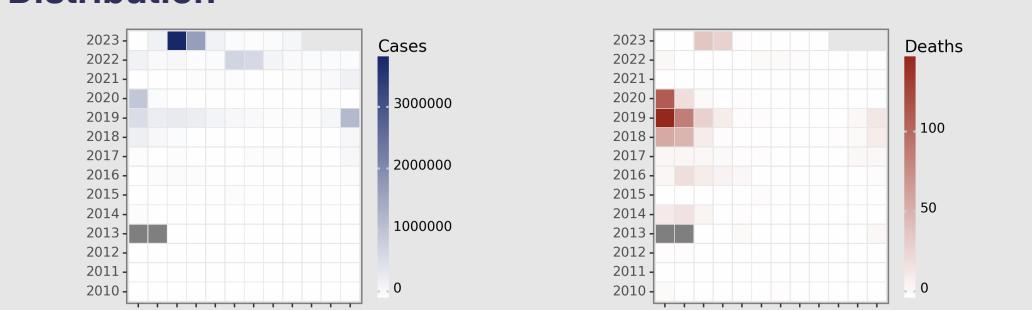
Temporal Trend



Cases Analysis

Over the past 13 years, the number of influenza cases in mainland China typically peaked in the winter months, whilst hitting the lowest point in the summer. The amount of detected cases began to rise significantly from 2017, reaching its zenith in March 2023 with a total of 3721370 cases. The trend of reported cases in recent years showed an increase in flu activity, suggesting that enhanced surveillance, improved diagnostic testing or more severe flu seasons potentially enhanced the reported case numbers. The sudden fall in cases in April 2020 might be due to infection-control measures for the COVID-19 pandemic, reducing influenza transmission.

Distribution



Highlights

There is a seasonal surge in Influenza cases, with peaks typically seen in the colder months (January to March) and smaller peaks in the summer months (June to July), aligning with typical global influenza seasons.

- The highest number of cases was reported in March 2023 with over 3.7 million cases, an unprecedented increase in the trend.
- Despite the high fluctuation in case numbers, the number of deaths remains relatively low indicating a low case fatality rate throughout the years.
- To date, as of September 2023, there are approximately 168,963 cases reported with no deaths - indicative of the low severity of Influenza this season.

Deaths Analysis

The death rate remains relatively low irrespective of the number of cases reported, suggesting effective clinical management of influenza in China. The years with the highest death rates were observed in 2014, 2018, and 2019, each reporting more than 50 deaths, the majority occurring in January - considered the peak of China's flu season. However, the death rate remained consistently low in the past few years with only minor fluctuations. This could be due to improved medical practices, increased vaccination, and prompt antiviral treatment. It's important to note that the death count only includes laboratory confirmed Influenza deaths, actual death toll may be higher.

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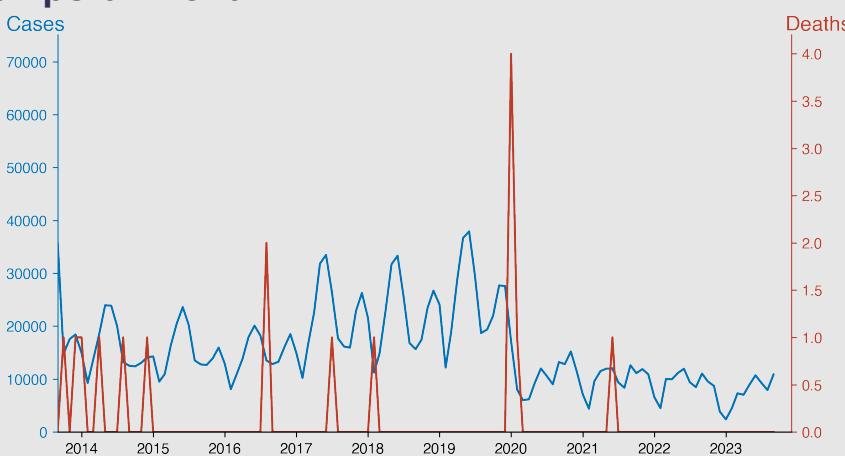
Mumps

September 2023

Introduction

Mumps is a highly contagious viral disease caused by the mumps virus, a member of the paramyxovirus family. It's primarily characterized by the painful swelling of the salivary glands, particularly the parotid glands, located near the ears, which can result in a distinctive "chipmunk cheek" appearance. Other symptoms may include fever, headache, muscle aches, tiredness, and loss of appetite. Mumps is typically transmitted through respiratory secretions or saliva. Since the introduction of the MMR (measles, mumps, rubella) vaccine, occurrences have dramatically decreased, though outbreaks still happen, particularly in areas with low vaccination coverage.

Temporal Trend



Cases Analysis

Mumps cases in mainland China show a clear cyclical pattern each year with peaks normally around May-June and lows around February. The highest number of cases was reported in June 2012 (71,606 cases), and the lowest in February 2022 (4,491 cases). From 2010 to 2022, an upward trend in the number of cases is noticeable with a peak in 2012 followed by a general downward trend through 2023. However, it's important to note data may not yet be complete for 2023.

Highlights

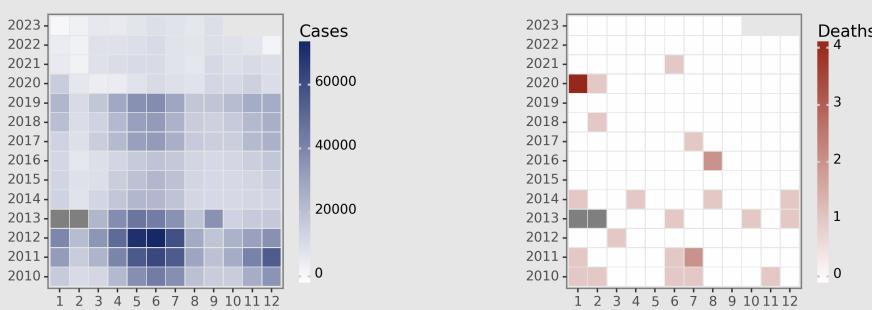
Mumps cases have seen a sharp decline in mainland China from the beginning of the decade (2010) till September 2023. The highest number of cases were seen in June 2012 (71606 cases), which was drastically reduced to 10867 cases in September 2023.

- The months of May, June and July appear to be peak months for the mumps seasonal trend in cases across the years, with June often reporting the highest number of cases.
- Despite a high number of reported cases, mumps mortality is exceedingly low. There's a notable peak in 2020 with 5 deaths, but usually there are only 0-2 reported deaths annually.
- Current disease situation as of September 2023 is under control with 10867 cases and no deaths.

Deaths Analysis

Mumps-related deaths in mainland China are extremely low relative to the number of reported cases. Between 2010 and 2023, there were a total of only 14 recorded deaths attributable to mumps. The highest number of deaths in a single month (4) was reported in January 2020. Unlike case numbers, there does not appear to be a pronounced seasonal pattern for deaths. It's crucial to remember though, while deaths from mumps are rare, complications can occur, leading to severe health issues.

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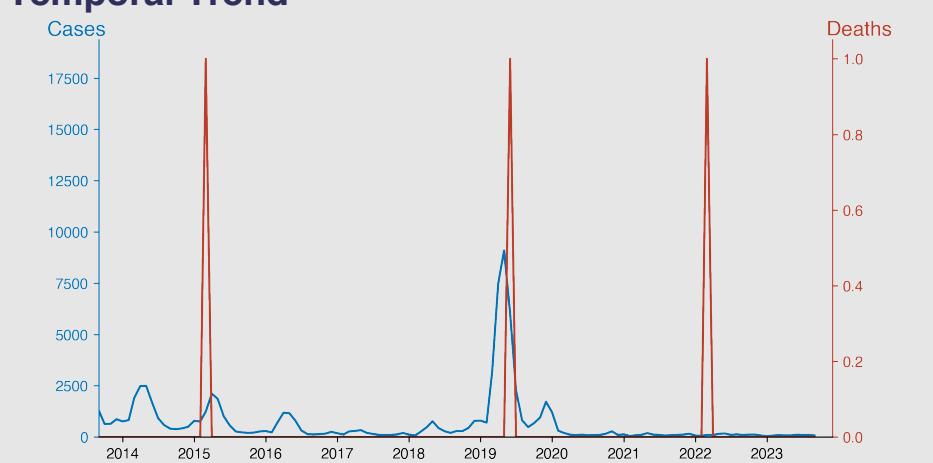
Rubella

September 2023

Introduction

Rubella, also known as German measles, is a contagious viral infection best known for its distinctive red rash. It's caused by the rubella virus, which is transmitted through respiratory droplets when an infected person coughs or sneezes. While often mild in children and adults, rubella infection during pregnancy, especially in the first trimester, can lead to serious congenital rubella syndrome (CRS) in the fetus, resulting in multiple birth defects and developmental issues. Since the development of the rubella vaccine, occurrences have greatly diminished in countries where the vaccine is widely administered.

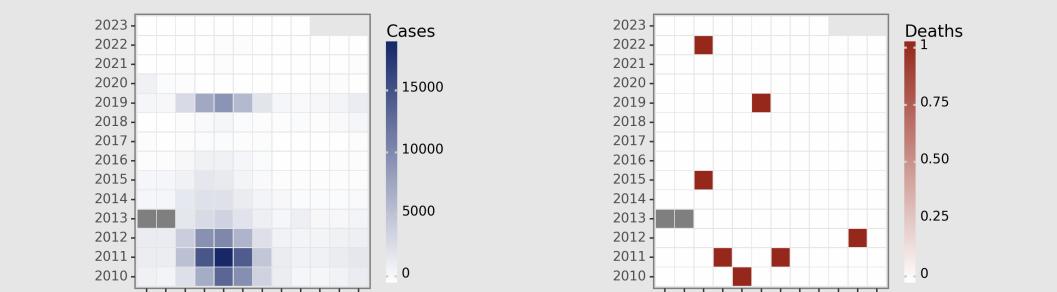
Temporal Trend



Cases Analysis

Rubella cases in mainland China demonstrate significant temporal fluctuations. The data shows a distinct pattern, with case numbers peaking between March and June every year, and notably in April. The highest number of cases (18445) occurred in May 2011, while the lowest (40) in January 2023. Over the 13-year period, there is a clear trend of decreasing incidence rates, with the highest concentrations of cases occurring between 2010-2012, and numbers generally decreasing from 2013 onwards. This suggests progress in disease control efforts, which could be attributed to various causes, including improved immunization coverage.

Distribution



Highlights

The data shows a consistent pattern of Rubella cases peaking between March and June every year, and declining significantly towards later months.

- Overall, the number of Rubella cases in mainland China has been on a steady decline from 2010 to 2023.
- The number of deaths caused by Rubella remains extremely low, with only a few instances of fatalities recorded between 2010 and 2023.
- As of September 2023, the number of Rubella cases remains low at 72, with zero recorded deaths.

Deaths Analysis

The mortality rate from Rubella in mainland China is remarkably low, with only five reported deaths between 2010 and 2022, during periods of high case numbers. This demonstrates that, while Rubella may have a high infection rate during certain periods, its virulence in terms of mortality remains relatively low. This low lethality rate can be attributed to effective disease management strategies in mainland China, including access to healthcare and treatment. Similarly to the case numbers, deaths also largely decreased over the observed period, indicating effective public health interventions.

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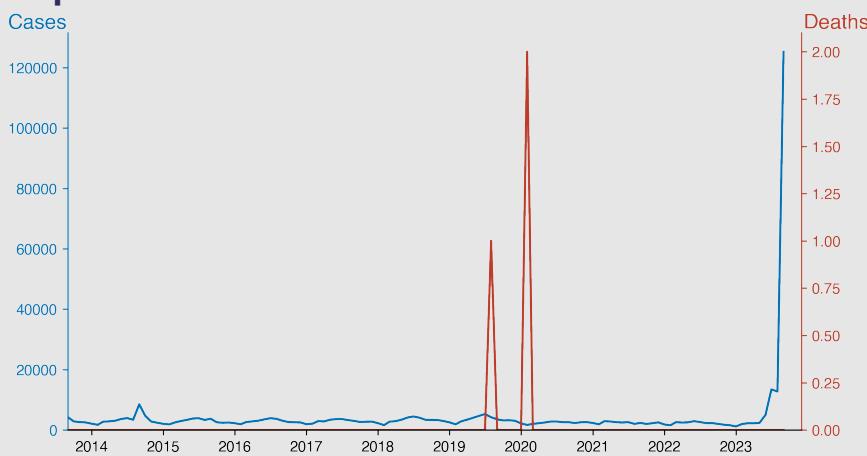
Acute hemorrhagic conjunctivitis

September 2023

Introduction

Acute Hemorrhagic Conjunctivitis (AHC) is a highly contagious eye infection characterized by sudden onset of painful, swollen red eyes, followed by subconjunctival hemorrhages, tearing, photophobia, and blurred vision. It typically affects the conjunctiva, the clear membrane covering the white part of the eye and the inner eyelids. AHC is primarily caused by the enterovirus 70 and the coxsackievirus A24, and occasionally by adenoviruses. It spreads easily through direct contact with contaminated hands, objects, or ophthalmologic instruments. Outbreaks often occur in crowded settings, usually as epidemics with a significant public health impact.

Temporal Trend



Cases Analysis

The data reflects an annual cycle of Acute hemorrhagic conjunctivitis cases in mainland China, with the incidence generally rising in the spring, peaking in the summer, and declining in the fall and winter. This seasonal trend aligns with the known epidemiology of the disease. There are exceptional spikes seen in September 2010 and 2023, potentially indicating major outbreak events. Overall, an increase in the number of cases over the longer term can also be observed, suggesting a growing disease burden. The highest spike occurs in September 2023 with 125264 cases.

Highlights

There is a cyclical trend observed in Acute hemorrhagic conjunctivitis cases with a surge noticed around the months of August to October. The peak, in 2023, is observed in September with 125264 cases.

- Despite a high number of reported cases, mortality rate remains extremely low, almost negligible, with only three reported deaths in the last decade.

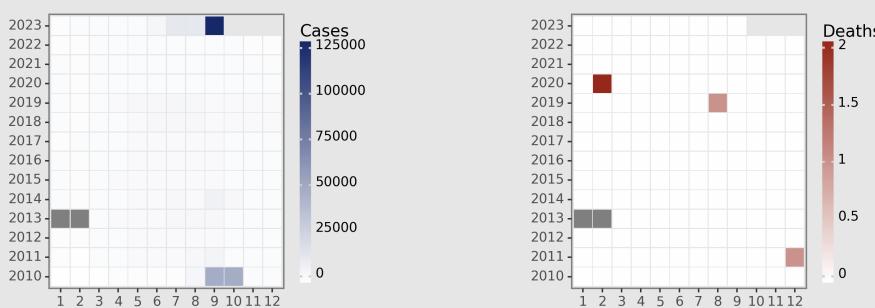
- Over the latest decade, the number of cases seems to gradually decrease until 2023 when a significant upsurge is reported. This suggests a potential outbreak or variation in the viral strain.

- The drastic increase in cases from June 2023, peaking in September 2023, indicates the current situation to be critical and necessitates rigorous epidemiological surveillance.

Deaths Analysis

The number of reported deaths due to Acute hemorrhagic conjunctivitis in mainland China is remarkably low, with only three recorded deaths over the presented timeframe. These occurred in December 2011, August 2019, and February 2020. The low fatality rate reflects the typically self-limiting nature of the disease, which generally only poses a significant risk to health in rare events of severe conditions or complications arising.

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Chinese Notifiable Infectious Diseases Surveillance Report

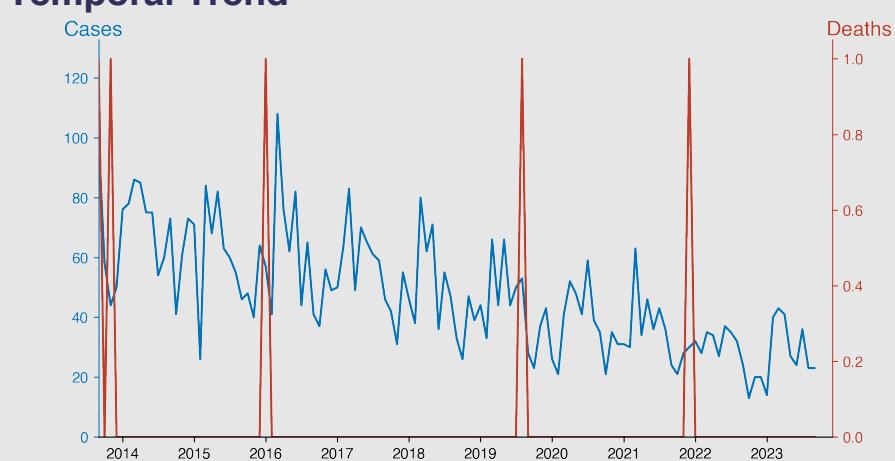
Leprosy

September 2023

Introduction

Leprosy, also known as Hansen's disease, is a chronic infectious disease caused by the bacterium *Mycobacterium leprae*. The disease primarily affects the skin, peripheral nerves, upper respiratory tract, and eyes, leading to skin lesions and nerve damage. Leprosy is characterized by a long incubation period and is known for its historical stigma, although it is now curable with multi-drug therapy. Transmission is believed to occur through prolonged close contact with an untreated, infected person. The disease has been largely brought under control in the modern era; however, pockets of high prevalence continue in some developing regions.

Temporal Trend



Highlights

Leprosy cases in mainland China have been experiencing a consistent downward trend since 2010, indicating a reduction in disease incidence.

- The number of deaths from Leprosy is quite low, suggesting effective disease management and treatment strategies in practice.
- As of September 2023, the number of monthly cases has fluctuated around 30 suggesting a stabilization of the disease with low occurrence.
- Despite the overall decline, there have been few notable increases at times, indicating periodic disease resurgence, which warrants continuous surveillance and control efforts.

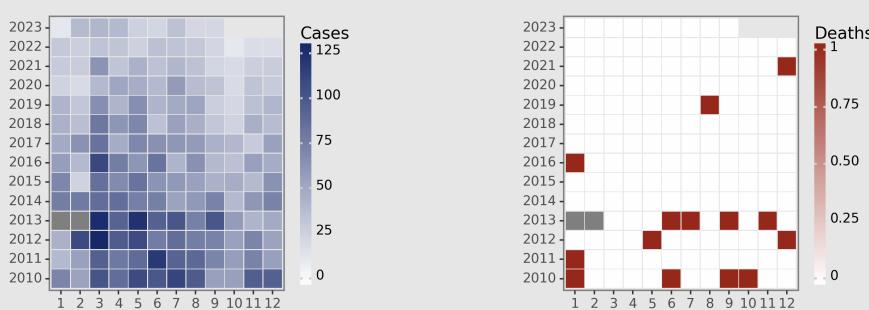
Cases Analysis

The reported data shows a general decline in Leprosy cases in mainland China from 2010 to 2023. Monthly case counts ranged from lows of 13 to highs of 127. March of 2012 reported the highest number of cases (127), while November, October, and January in 2022 recorded the lowest (13). This suggests variable seasonality could influence Leprosy transmission. The decline might be attributed to improved healthcare, early detection, and successful prevention strategies. The sharp periodic increases might align with population movements or healthcare access changes.

Deaths Analysis

Deaths from Leprosy over the reported period are relatively rare in comparison to the number of reported cases. The mortality rate compared to cases was very low, indicating a controlled epidemic and efficient treatment. There were several months in which no deaths were reported, and in the months where deaths occurred, the number never exceeded one. The disparate number of cases and deaths could be attributed to early detection and efficient treatment protocols, emphasizing the benefits of robust public health initiatives against Leprosy.

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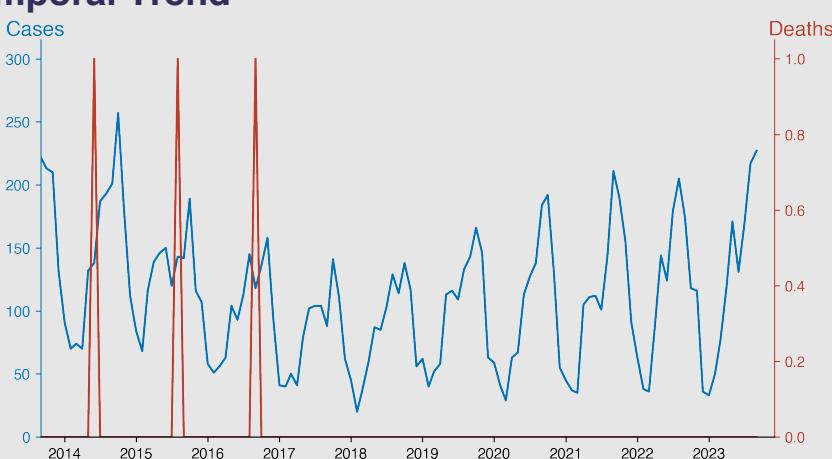
Typhus

September 2023

Introduction

Typhus is an acute, febrile illness caused by several species of Rickettsia bacteria, transmitted to humans through arthropod vectors like lice, fleas, or mites. It presents with symptoms such as high fever, headache, chills, and a distinctive rash. Historically, outbreaks were associated with poor hygiene and crowding, often in wartime and disaster conditions. It is primarily diagnosed using serologic tests and treated effectively with antibiotics such as doxycycline. Preventative measures include improving sanitation, reducing contact with vectors, and using insect repellents or insecticide-treated clothing. There are three main types: epidemic typhus, endemic (murine) typhus, and

Temporal Trend



Cases Analysis

From January 2010 to September 2023, there were peaks and troughs in the number of confirmed cases of Typhus reported in mainland China. A spike in cases was often reported in summer and autumn months, which might be due to favorable conditions for the vector in this period. A significant decrease in confirmed cases was experienced between the years 2010 to 2023, suggesting an effective intervention strategy in place, such as mass vaccination or improved sanitation measures.

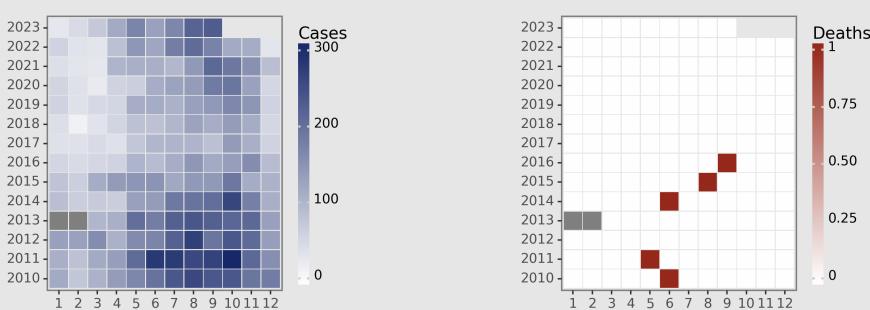
Highlights

- A general decline in the number of Typhus cases per month has been observed in mainland China between 2010 and 2023, with a few exceptions.
- Despite the decreasing number of cases, there have been some increases around May to September each year in this period, suggesting a potential seasonal pattern to the disease's prevalence.
- Notably, there have been very few deaths as a result of Typhus in all these years, implying a high recovery rate, efficient treatment methods, or low disease severity.
- As of September 2023, there were 227 reported cases with no fatalities, which is a slight increase compared to previous years' data within the same month.

Deaths Analysis

Throughout this 13-year span, recorded deaths from Typhus remained remarkably low, reporting only a handful of instances (June 2010, May 2011, June 2014, August 2015, September 2016). This low mortality rate may indicate effective treatment regimens and prompt medical care, thus minimizing fatal outcomes. However, it is essential to investigate any unreported deaths or untreated cases in rural areas to ensure comprehensive epidemic management.

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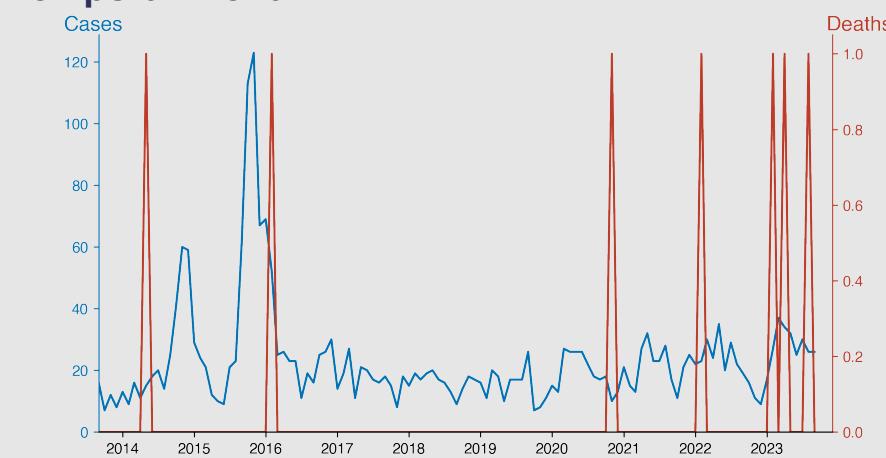
Kala azar

September 2023

Introduction

Kala azar, also known as visceral leishmaniasis, is a parasitic disease caused by the Leishmania genus, transmitted through the bites of infected female phlebotomine sandflies. It affects the visceral organs, predominantly the spleen, liver, and bone marrow. Symptoms include fever, weight loss, anemia, and enlargement of the spleen and liver. It's prevalent in tropical and subtropical regions, with significant occurrences in East Africa, Brazil, India, and Bangladesh. If untreated, kala azar can have a fatal outcome, but effective treatments exist, including antimonial compounds and amphotericin B. Control measures involve reducing sandfly populations and preventing bites.

Temporal Trend



Highlights

There has been a general declining trend in the number of Kala azar cases from 2010, when cases peaked around 50+ monthly, to 2023, with averages around 25 cases per month.

- Deaths linked to Kala azar have remained extremely low, almost negligible, with one death occurring roughly once per year. However, 2023 saw a slight uptick with four deaths.
- Case numbers have shown some seasonal variation, with a trend towards higher case numbers in the first half of the year, typically peaking in the spring.
- Despite reductions in case numbers, Kala azar maintains a persistent presence, indicating the disease is endemic in certain areas in China.

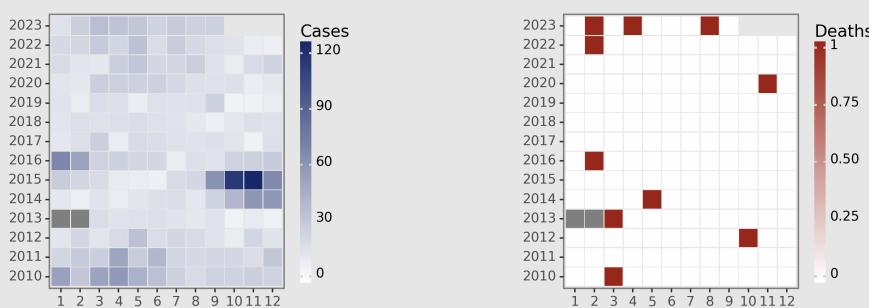
Cases Analysis

The presented data reveals consistent cases of Kala azar in mainland China over the years. The number of cases shows periodic peaks, especially in the cooler months (October to February), followed by a cyclical decrease during the warmer months (June to August). There are exceptional spikes in October 2015 and November 2015, where cases reached 113 and 123 respectively, significant outliers compared to the average monthly case tally. Despite these peaks, a steady declining trend is seen from 2010 where the cases kick-off at 53 in January to fewer cases by 2023.

Deaths Analysis

In contrast to the number of cases, the number of deaths remains extremely low, with most months reporting zero deaths. Only 9 monthly entries out of the total reported a single death each. An increase in deaths is noticed in 2023, with three casualties in February, April and August, however, it's not consistent nor drastic. Overall, the mortality rate is low, implying a potentially successful response from health bodies or the disease's ordinarily low fatality rate in this region.

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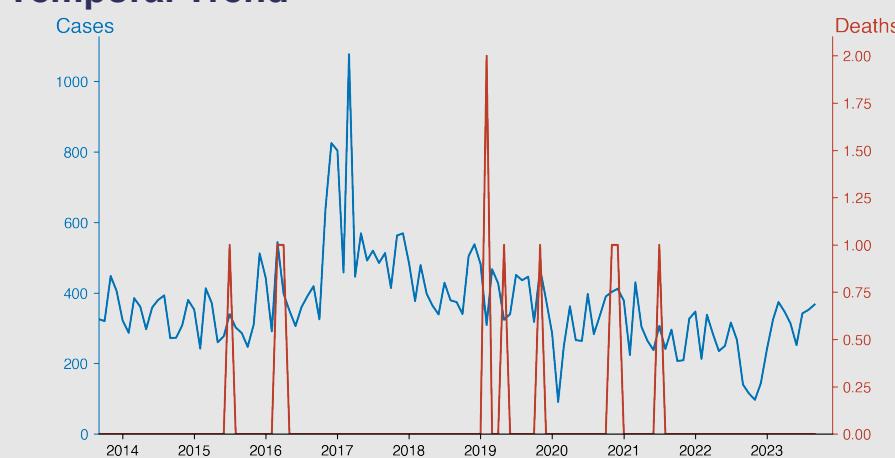
Echinococcosis

September 2023

Introduction

Echinococcosis is a parasitic disease caused by infection with tiny tapeworms of the genus *Echinococcus*. It occurs in two main forms: cystic echinococcosis (CE), also known as hydatid disease, caused by *Echinococcus granulosus*, and alveolar echinococcosis (AE), caused by *Echinococcus multilocularis*. Infection is transmitted to humans through ingestion of parasite eggs in contaminated food, water, or soil, or through direct contact with host animals. The disease is characterized by the slow growth of cysts in various organs, mainly the liver and lungs, and can cause severe complications if untreated.

Temporal Trend

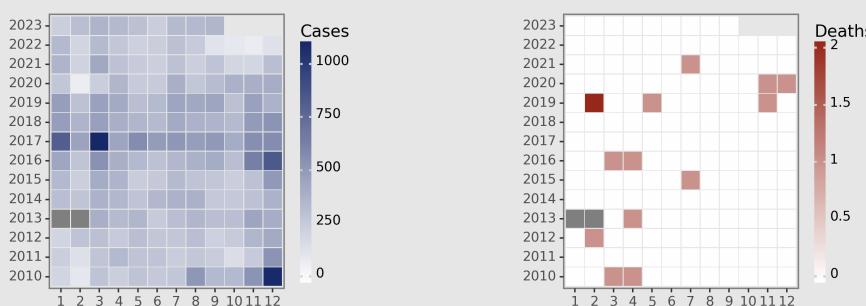


Cases Analysis

(108 words)

There were steady rises and falls in Echinococcosis cases reported in mainland China between 2010 and 2023. Peaks were typically observed during winter months or early spring: December 2010, November 2011, December 2012, November 2013, March 2015, March 2016, March 2017, November 2017, December 2018, February 2019, November 2019, and March 2021. Most likely, the spikes in Echinococcosis cases correspond with increased human contact with host animals due to agricultural cycles or livestock production practices. Conversely, falls typically occurred over summer periods, reaching the lowest in 2022 and 2023, potentially indicating growing

Distribution



Highlights

Echinococcosis cases in mainland China have seen fluctuations over the years 2010-2023, with a notable peak in the number of cases (1,077 cases) in March 2017. Since then, rates have generally declined.

- September 2023 data suggests the current situation is stable without a sudden surge or drop in cases; 367 cases were reported with no deaths.
- Deaths are extremely low relative to the number of cases, pointing towards a possibly effective healthcare response or potentially low fatality rate of the disease.
- Data shows a trend of more Echinococcosis cases reported towards the end and at the beginning of each year, hinting towards a seasonal pattern.

Deaths Analysis

(108 words)

Recorded Echinococcosis deaths were extremely low throughout the 13-year period analysed, with occasional fatalities reported—March and April 2010, February 2012, April 2013, July 2015, March and April 2016, February and May 2019, November 2019, November and December 2020, and July 2021. Despite fluctuations in diagnosed cases, the mortality rate remained consistently negligible. This suggests effective medical management of Echinococcosis infections in the region, as treatment outcomes seem to keep fatalities at bay. However, the periods of reported deaths coincide with some peak case periods, indicating a correlation between high infection

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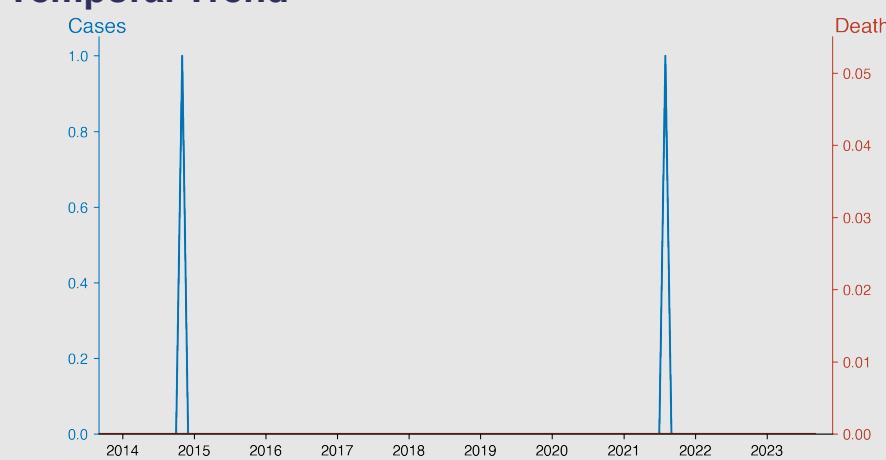
Filarisis

September 2023

Introduction

Filarisis is a parasitic disease caused by an infection with roundworms of the Filarioidea type. These are spread by blood-feeding black flies and mosquitoes. There are eight different types of filarial nematodes which use humans as their definitive host. These are divided into three groups: lymphatic filariasis, subcutaneous filariasis, and serous cavity filariasis. Lymphatic filariasis, the most common type, can lead to elephantiasis which is characterized by severe swelling in the arms, legs, or genitals. The disease is diagnosed by microscopic examination of blood samples, taken during the nocturnal activity of the parasites. Treatment options include antiparasitic

Temporal Trend



Cases Analysis

The data for Filarisis in mainland China indicates a significantly low prevalence of the disease. From January 2010 to September 2023, only 3 cases have been recorded: one in August 2011, one in November 2014, and the last in August of 2021. The vast majority of months show zero cases, suggesting a highly effective control and prevention strategy in place. Despite the low case numbers, continued monitoring is required due to the potential risk and health burdens associated with Filarisis. (Word count: 80)

Highlights

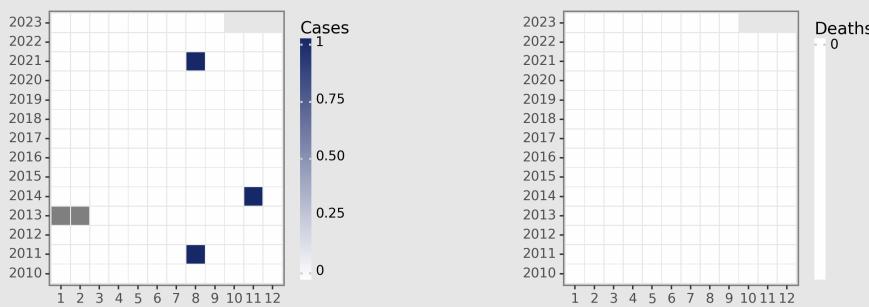
Filarisis in mainland China is currently very well contained, with a total of only three recorded cases from 2010 to September 2023.

- Out of the three cases, none succumbed to the disease, showing a 0% mortality rate for Filarisis in the reviewed period.
- Cases were reported only in August 2011, November 2014, and August 2021, making the occurrence very isolated and sporadic.
- As of September 2023, there have been no new cases reported in the year thus maintaining the overall low prevalence pattern.

Deaths Analysis

As per the presented dataset, Filarisis has caused zero deaths in mainland China from 2010 through to September 2023. While this record is highly commendable, it's crucial to note that this doesn't necessarily mean the absence of morbidity or suffering; Filarisis has the capacity to cause debilitating symptoms and significant physical disabilities. These zero death records could be linked to robust health policies, early diagnoses, or efficient medical treatment within the country. (Word count: 85)

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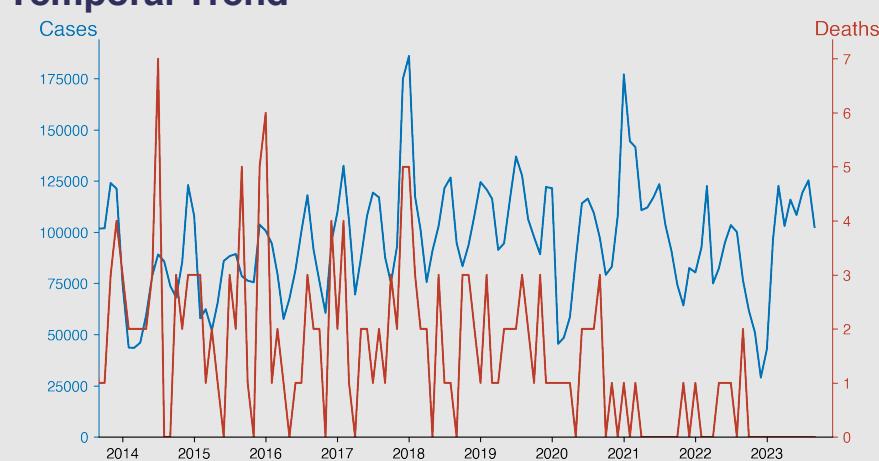
Infectious diarrhea

September 2023

Introduction

Infectious diarrhea is a condition caused by a host of bacteria, viruses, and parasites, which enter the body primarily through the ingestion of contaminated food or water. Symptoms often include frequent loose or watery stools, abdominal cramps, and nausea, with potential dehydration as a serious complication. The disease is particularly prevalent in regions with inadequate sanitation and can be life-threatening, especially for children and the immunocompromised. Prevention strategies include safe food handling, proper hand hygiene, and access to clean water. Vaccinations and prompt treatment can mitigate the impact of certain pathogens responsible for infectious

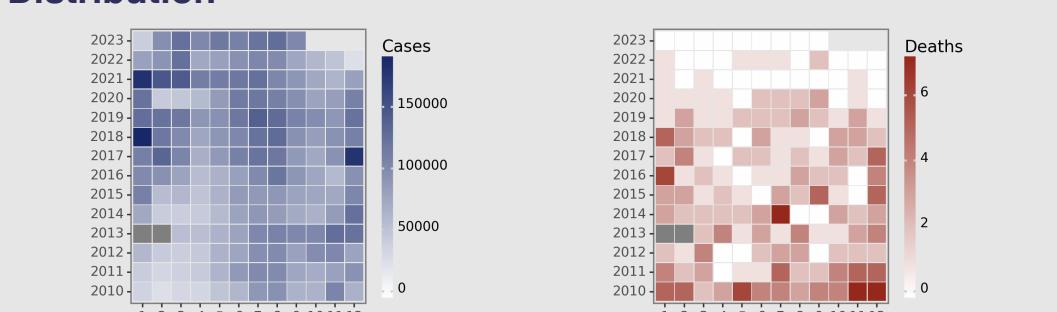
Temporal Trend



Cases Analysis

The data shows seasonal variability to infectious diarrhea cases in mainland China. Each year, cases tend to rise from April/May, peak around June/July, and gradually fall through winter. The disease exhibits cyclical behavior, with cases increasing during the warmer months, indicating a probable link with environmental factors, such as temperature and precipitation. Notably, cases drastically increased in 2011, maintaining high values through 2013. In 2014 the pattern seemed to normalize but started increasing again steadily from 2016 to 2018. Even though there seem to be reductions, the total number of cases over the years remains comparatively high.

Distribution



Highlights

Infectious diarrhea in mainland China has displayed strong seasonality with peaks generally occurring in the hot, summer months (June, July, and August) and a decrease in cases in the colder, winter months.

- Despite the seasonality, a general increasing trend of cases can be observed from the start period in 2010 to a peak in 2018, followed by an overall decreasing trend up to the current period in 2023.

- Mortality due to infectious diarrhea is notably low, indicating effective medical interventions and overall public health response to manage the disease.

- As of September 2023, there were 102,559 cases with no recorded deaths, which is relatively lower compared to the last two years within the same month.

Deaths Analysis

In contrast with the high number of cases, the death count remains remarkably low throughout, never exceeding seven deaths per month. While the death rate varies little across seasons, some years observed higher death counts like 2010 and 2014. The death rate has decreased significantly over time, reaching zero deaths/month repeatedly after 2015. The low mortality rate could possibly suggest effective measures in place to deal with severe cases, like prompt treatment strategies, health education, and improved public health infrastructure, despite the high incidence of the disease.

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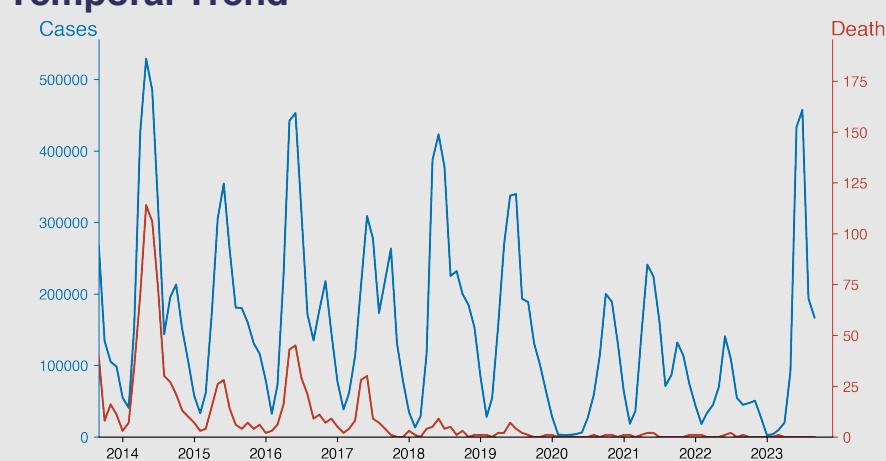
Hand foot and mouth disease

September 2023

Introduction

Hand, Foot, and Mouth Disease (HFMD) is an infectious illness typically caused by coxsackievirus A16 and enterovirus 71. It commonly affects children but can occur in adults. Characterized by fever, sore throat, and blisters on the hands, feet, and inside the mouth, HFMD spreads through direct contact with nasal secretions, saliva, fluid from blisters, or stool of an infected person. While normally self-limiting and resolving within 7 to 10 days, HFMD can sometimes lead to complications, especially with enterovirus 71 infections. Preventative measures include good hygiene practices and isolating infected individuals to limit transmission.

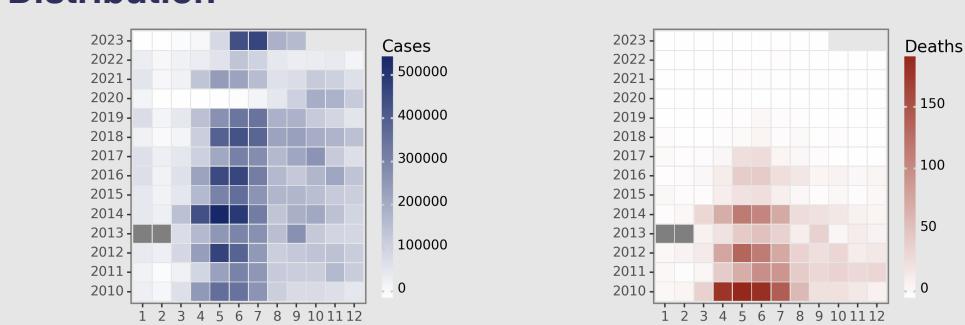
Temporal Trend



Cases Analysis

There has been a marked disparity in reported cases of Hand, Foot and Mouth Disease (HFMD) over the years in mainland China, with a noticeable seasonal pattern. A sharp increase is observed during April, reaching a peak around June, and then declining from July onwards. While the exact number of cases fluctuates each year, there has been a trend of an overall increase in yearly case numbers since 2010. However, there was a significant drop in cases in 2020, which might be due to stringent health measures during the Covid-19 pandemic. Reports for 2023 show an unprecedented surge in June, indicating potentially evolving dynamics of disease transmission.

Distribution



Highlights

Significant reduction in Hand foot and mouth disease cases in China from 2010 with over 354,000 cases and 186 deaths in May to September 2023 with 166,980 cases and no deaths reported. This is indicative of improved disease management and prevention.

- Peaks are prominently noticed during the warmer months (May-June) across the years. Exemplifying this, the jump from 20,105 to 433,084 cases was seen from April to June in 2023. Hence, the disease exhibits clear seasonality.
- Even though consistent fluctuations are noted in the disease cases, a positive trend is the relatively low number or lack of fatalities especially evident post-2017.

Deaths Analysis

The number of deaths from HFMD presents a generally low mortality, with the highest number recorded in April 2010 with 175 fatalities. A decrease in the number of deaths can be seen over the years, despite the increasing number of cases. This might suggest improvements in healthcare facilities and early detection strategies. The highest death rate coincides with the peak of cases around April-June, indicating deaths are closely related to the severity of the outbreak. Similar to the cases, there has been a noticeable drop in fatalities recorded during 2020, aligning with the pandemic period. Interestingly, no fatal cases are reported after April 2023 despite the surge in disease cases.

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