

CNIDs: Chinese Notifiable Infectious Diseases Sensing Project

A Dynamic Sensing Report of Notifiable Infectious Diseases Data in Mainland, China

2023 June

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Monthly Report -- 2023 June

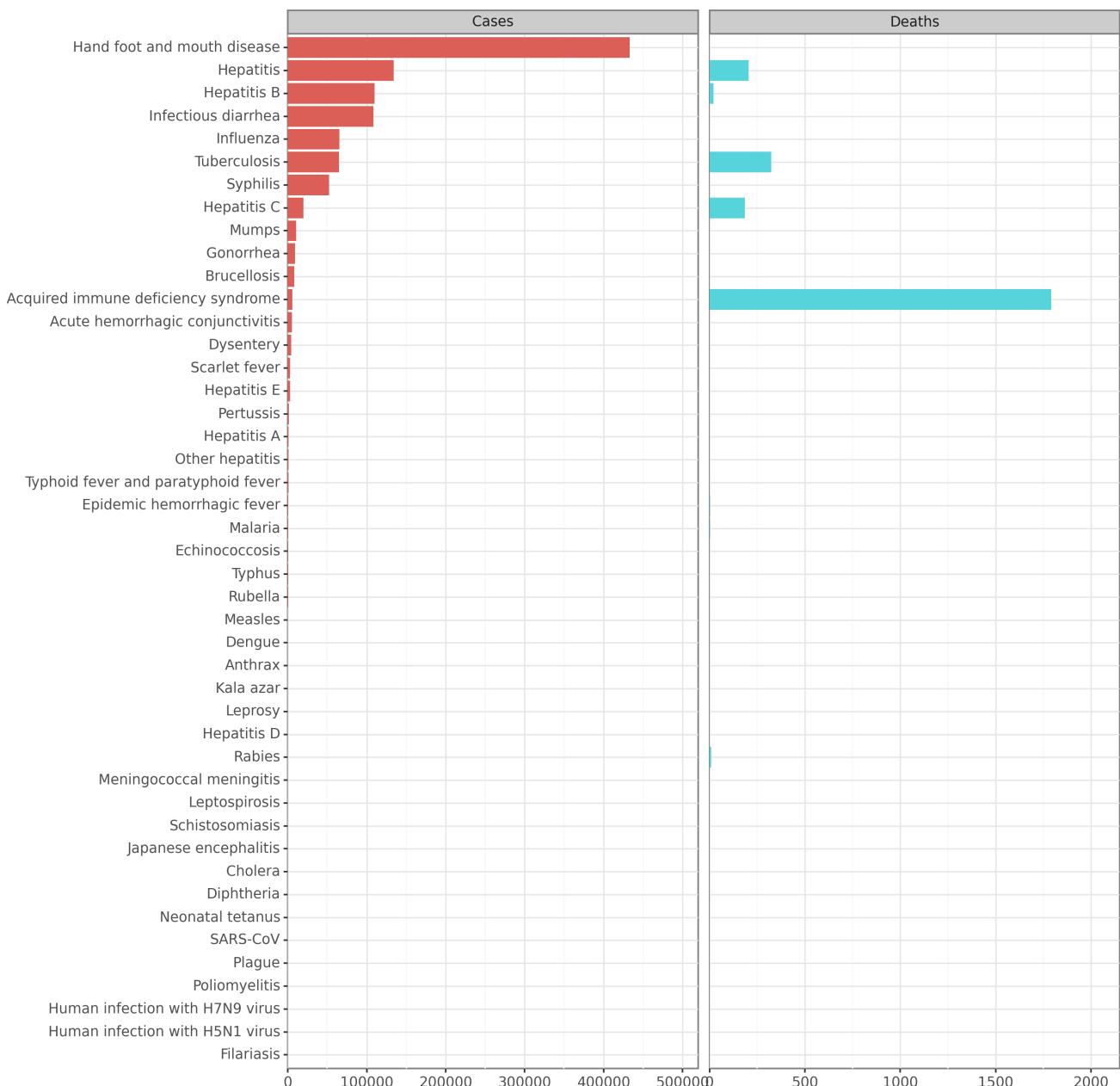


Figure 1: Monthly Notifiable Infectious Diseases Reports in 2023 June

The monthly cases and deaths of various diseases in mainland China during June 2023 were analyzed and compared to the data from June 2022.

The data shows that there were no reported cases of Plague and SARS-CoV in June 2023, indicating successful control measures against these diseases. Cholera also recorded a significant decrease of 50% compared to the previous year.

However, concerning Acquired immune deficiency syndrome (AIDS), there was an increase of 2.36% in cases during June 2023. This rise might require further investigation and evaluation of preventive strategies.

Hepatitis showed varied trends among its different types. While Hepatitis A witnessed a decrease of 9.06%, Hepatitis B experienced a significant increase of 3.01%. Conversely, Hepatitis C showed a decline of 6.03% in cases. The contrasting trends signify the need to address the prevention and control strategies for different types of hepatitis.

Moreover, Diseases such as Poliomyelitis, Human infection with H5N1 virus, and Diphtheria reported no cases in June 2023, indicating the effectiveness of vaccination programs and other prevention measures. In contrast, Dengue cases spiked dramatically, increasing by 5400% in June 2023. This surge necessitates immediate attention and action to mitigate the spread and impact of the disease.

Furthermore, Tuberculosis, Typhoid fever and paratyphoid fever, and Pertussis recorded reductions in cases by 4.58%, 10.43%, and 64.11%, respectively, indicating successful control efforts and improved healthcare interventions.

Influenza, on the other hand, observed a significant decline in cases during June 2023, with a staggering decrease of 91.26%. This decrease might be attributed to the extensive use of influenza vaccines and public health measures during the COVID-19 pandemic.

It is noteworthy that Hand foot and mouth disease (HFMD) experienced a significant surge of 207.89% in cases compared to the previous year. This increase calls for enhanced surveillance and targeted intervention strategies to control the spread of HFMD.

In summary, the data presents a mixed picture of the disease burden in mainland China during June 2023. While certain diseases have been effectively controlled, others have shown concerning increases. These findings underscore the importance of ongoing monitoring, research, and implementation of appropriate preventive measures to combat and manage these diseases effectively.

Table 1: Monthly Notifiable Infectious Diseases Cases in 2023 June

Diseases	Cases	Comparison with 2023 May	Comparison with 2022 June
Plague	0	0 (/)	0 (/)
Cholera	3	0 (0.00%)	-3 (-50.00%)
SARS-CoV	0	0 (/)	0 (/)
Acquired immune deficiency syndrome	5,759	304 (5.57%)	133 (2.36%)
Hepatitis	133,888	-7,604 (-5.37%)	2,031 (1.54%)
Hepatitis A	944	-132 (-12.27%)	-94 (-9.06%)
Hepatitis B	110,063	-5,871 (-5.06%)	3,217 (3.01%)
Hepatitis C	19,664	-1,299 (-6.20%)	-1,261 (-6.03%)
Hepatitis D	23	3 (15.00%)	1 (4.55%)
Hepatitis E	2,529	-293 (-10.38%)	118 (4.89%)
Other hepatitis	665	-12 (-1.77%)	50 (8.13%)
Poliomyelitis	0	0 (/)	0 (/)
Human infection with H5N1 virus	0	0 (/)	0 (/)
Measles	89	-20 (-18.35%)	-21 (-19.09%)
Epidemic hemorrhagic fever	365	-34 (-8.52%)	-201 (-35.51%)
Rabies	11	1 (10.00%)	-4 (-26.67%)
Japanese encephalitis	3	3 (/)	-4 (-57.14%)
Dengue	55	34 (161.90%)	54 (5400.00%)
Anthrax	31	6 (24.00%)	2 (6.90%)

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Dysentery	4,353	600 (15.99%)	-355 (-7.54%)
Tuberculosis	64,788	-4,280 (-6.20%)	-3,113 (-4.58%)
Typhoid fever and paratyphoid fever	627	80 (14.63%)	-73 (-10.43%)
Meningococcal meningitis	9	7 (350.00%)	3 (50.00%)
Pertussis	1,512	178 (13.34%)	-2,701 (-64.11%)
Diphtheria	1	1 (/)	1 (/)
Neonatal tetanus	1	1 (/)	1 (/)
Scarlet fever	2,684	786 (41.41%)	-212 (-7.32%)
Brucellosis	8,326	-741 (-8.17%)	-1,617 (-16.26%)
Gonorrhea	8,863	-214 (-2.36%)	-125 (-1.39%)
Syphilis	52,007	-1,251 (-2.35%)	3,500 (7.22%)
Leptospirosis	9	1 (12.50%)	-3 (-25.00%)
Schistosomiasis	7	4 (133.33%)	2 (40.00%)
Malaria	264	52 (24.53%)	202 (325.81%)
Human infection with H7N9 virus	0	0 (/)	0 (/)
Influenza	65,289	-147,600 (-69.33%)	-681,749 (-91.26%)
Mumps	10,710	1,780 (19.93%)	-1,235 (-10.34%)
Rubella	110	37 (50.68%)	-57 (-34.13%)
Acute hemorrhagic conjunctivitis	4,985	2,674 (115.71%)	2,080 (71.60%)
Leprosy	24	-3 (-11.11%)	-13 (-35.14%)
Typhus	131	-40 (-23.39%)	7 (5.65%)
Kala azar	25	-7 (-21.88%)	5 (25.00%)
Echinococcosis	252	-62 (-19.75%)	2 (0.80%)
Filariasis	0	0 (/)	0 (/)
Infectious diarrhea	108,442	-7,456 (-6.43%)	13,430 (14.14%)
Hand foot and mouth disease	433,084	341,825 (374.57%)	292,423 (207.89%)
Total	906,707	179,062 (24.61%)	-379,151 (-29.49%)

Table 2: Monthly Notifiable Infectious Diseases Deaths in 2023 June

Diseases	Deaths	Comparison with 2023 May	Comparison with 2022 June
Plague	0	0 (/)	0 (/)
Cholera	0	0 (/)	0 (/)
SARS-CoV	0	0 (/)	0 (/)
Acquired immune deficiency syndrome	1,792	-141 (-7.29%)	145 (8.80%)
Hepatitis	206	36 (21.18%)	155 (303.92%)
Hepatitis A	0	0 (/)	0 (/)
Hepatitis B	20	3 (17.65%)	-15 (-42.86%)

Hepatitis C	186	35 (23.18%)	171 (1140.00%)
Hepatitis D	0	0 (/)	0 (/)
Hepatitis E	0	-2 (-100.00%)	0 (/)
Other hepatitis	0	0 (/)	-1 (-100.00%)
Poliomyelitis	0	0 (/)	0 (/)
Human infection with H5N1 virus	0	0 (/)	0 (/)
Measles	0	0 (/)	0 (/)
Epidemic hemorrhagic fever	2	2 (/)	-4 (-66.67%)
Rabies	9	2 (28.57%)	3 (50.00%)
Japanese encephalitis	0	0 (/)	0 (/)
Dengue	0	0 (/)	0 (/)
Anthrax	0	0 (/)	0 (/)
Dysentery	0	0 (/)	0 (/)
Tuberculosis	324	-19 (-5.54%)	-21 (-6.09%)
Typhoid fever and paratyphoid fever	0	0 (/)	0 (/)
Meningococcal meningitis	0	0 (/)	-1 (-100.00%)
Pertussis	0	0 (/)	0 (/)
Diphtheria	0	0 (/)	0 (/)
Neonatal tetanus	0	0 (/)	0 (/)
Scarlet fever	0	0 (/)	0 (/)
Brucellosis	0	0 (/)	0 (/)
Gonorrhea	0	0 (/)	0 (/)
Syphilis	1	-9 (-90.00%)	-3 (-75.00%)
Leptospirosis	0	0 (/)	0 (/)
Schistosomiasis	0	0 (/)	0 (/)
Malaria	2	2 (/)	2 (/)
Human infection with H7N9 virus	0	0 (/)	0 (/)
Influenza	1	-1 (-50.00%)	-3 (-75.00%)
Mumps	0	0 (/)	0 (/)
Rubella	0	0 (/)	0 (/)
Acute hemorrhagic conjunctivitis	0	0 (/)	0 (/)
Leprosy	0	0 (/)	0 (/)
Typhus	0	0 (/)	0 (/)
Kala azar	0	0 (/)	0 (/)
Echinococcosis	0	0 (/)	0 (/)
Filariasis	0	0 (/)	0 (/)
Infectious diarrhea	0	0 (/)	-1 (-100.00%)
Hand foot and mouth disease	0	0 (/)	-1 (-100.00%)

Total	2,337	-128 (-5.19%)	271 (13.12%)
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History Data Analysis2023 June

Total

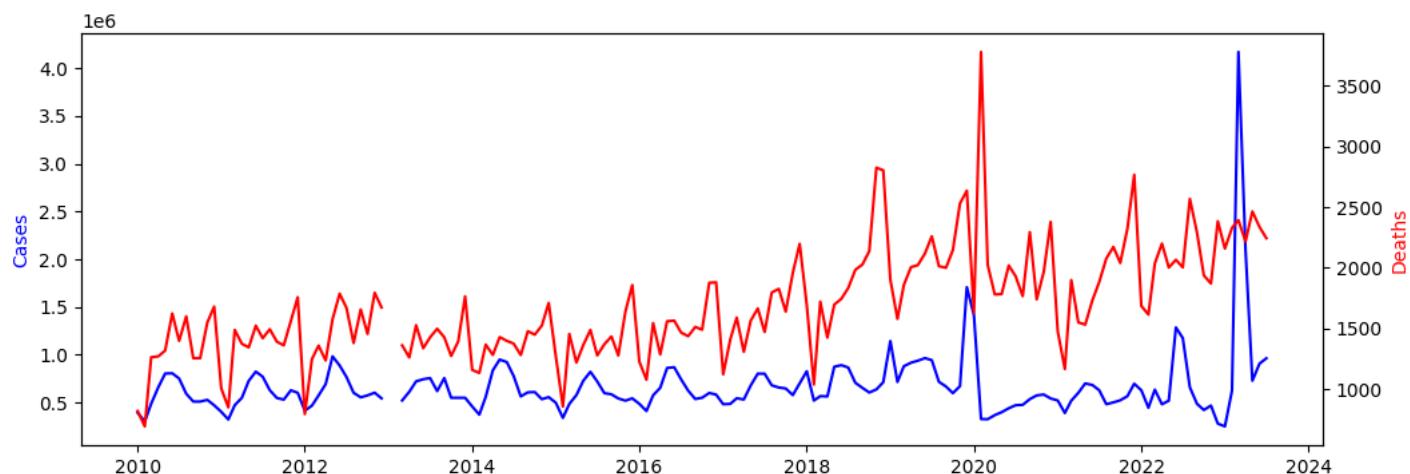


Figure 2: The Change of Total Reports before 2023 June

The data provided is a monthly time series of cases and deaths of a disease in Mainland China from January 2010 to June 2023. The series of monthly cases shows large fluctuations over time. The highest number of monthly cases was recorded in March 2023, with over 4 million cases reported. This represents a sharp increase compared to the previous months, with the number of cases in April 2023 decreasing by more than 50%. The majority of months show a gradual increase in cases over time, with several periods of abrupt changes indicating potential outbreaks.

However, it is important to note that the data quality may be affected by measurement errors or changes in diagnostic criteria. It would be necessary to investigate whether changes in the number of reported cases are due to changes in disease occurrence or represent changes in the system of data collection or processing.

Monthly death rate also follows time variations, with a maximum in December 2019 and a minimum in February 2013. The death rate usually lags behind the cases, which allows for adequate medical response times. Overall, the data suggests that the disease presents a substantial public health challenge, with trends in cases and deaths remaining highly unpredictable. Further research is needed to identify the factors driving these fluctuations, as well as to design intervention strategies that target the vulnerable populations during outbreaks.

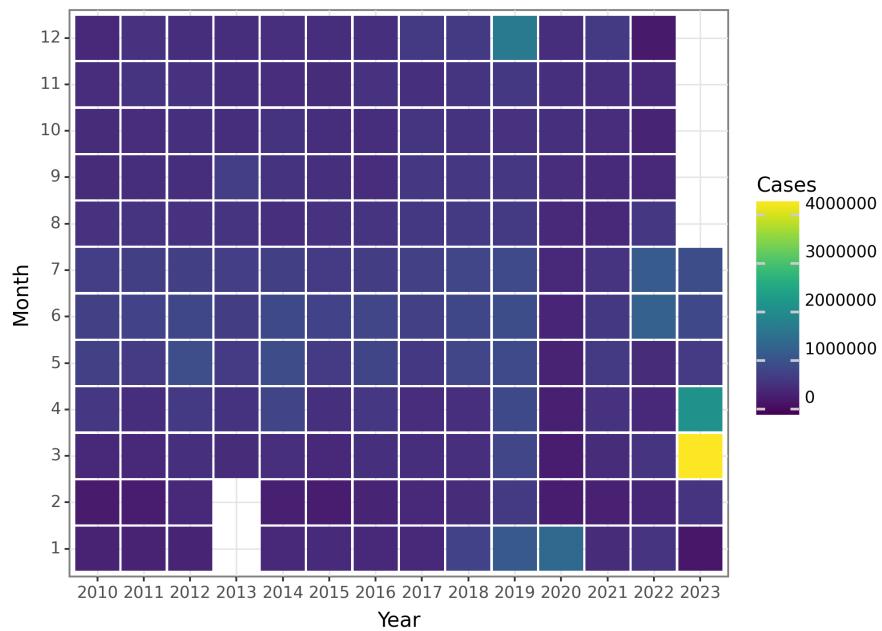


Figure 3: The Change of Total Cases before 2023 June

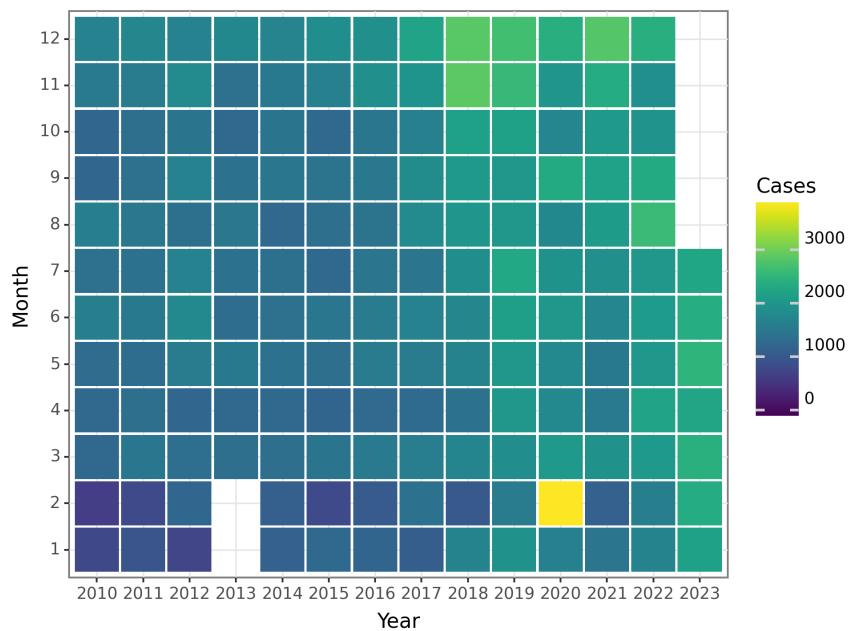


Figure 4: The Change of Total Deaths before 2023 June

Plague

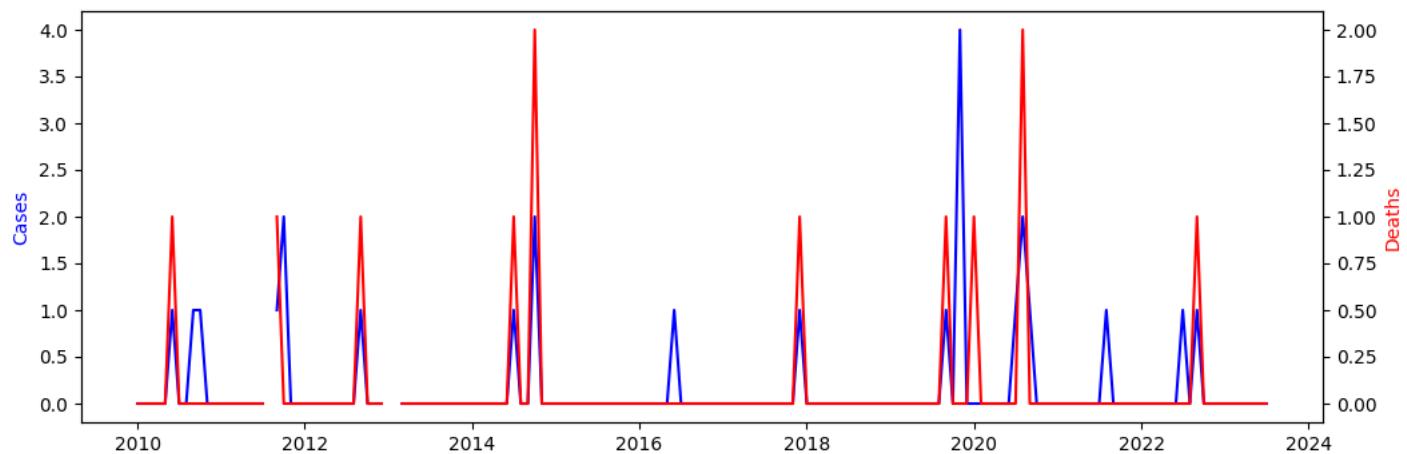


Figure 5: The Change of Plague Reports before 2023 June

The provided data represents the monthly cases and deaths due to Plague in mainland China from January 2010 to June 2023. The analysis of this data can provide insights into the trends, patterns, and potential impact of Plague on the population in the region.

Upon analyzing the data, it is evident that the number of Plague cases and deaths remained relatively low throughout most of the observed period. In fact, from 2010 to 2015, the cases and deaths remained consistently at zero, indicating that the disease was not prevalent during this time.

However, in 2016, there was a sudden increase in Plague cases, with June recording the highest number of cases at 1. This could be an isolated incident or an indication of a localized outbreak. The following year, in August, there was a sudden decrease in deaths, with a reported value of -10. This negative value suggests a data anomaly or reporting error that should be further investigated.

In 2018 and 2019, there were sporadic reports of Plague cases, with September and November 2019 recording the highest number of cases at 1 and 4, respectively. Similarly, in 2020, there was a slight increase in cases and deaths. Notably, in January 2020, one death was reported, and August recorded the highest number of deaths at 2.

It is important to note that the data from 2021 to 2023 indicates a decline in both Plague cases and deaths, with most months reporting zero values. This suggests that the efforts taken to control and prevent the spread of Plague have been effective in recent years.

Overall, the data indicates a relatively low prevalence of Plague in mainland China throughout the observed period. Nevertheless, the sporadic increase in cases during certain months, especially in 2016 and 2019, highlights the need for continued vigilance and proactive measures to prevent the potential re-emergence or outbreak of this infectious disease.

Further analysis and interpretation of the data, such as examining the geographical distribution, age groups affected, and possible risk factors, would provide valuable insights into the dynamics of Plague and aid in the development of strategies for its prevention and control. Further research and surveillance are necessary to monitor and respond to any potential changes in the epidemiology of Plague in mainland China.

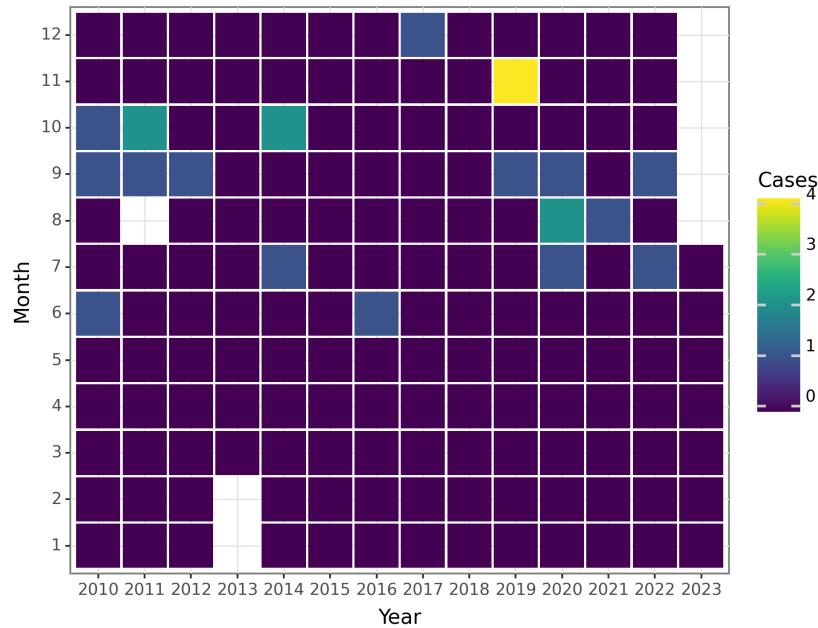


Figure 6: The Change of Plague Cases before 2023 June

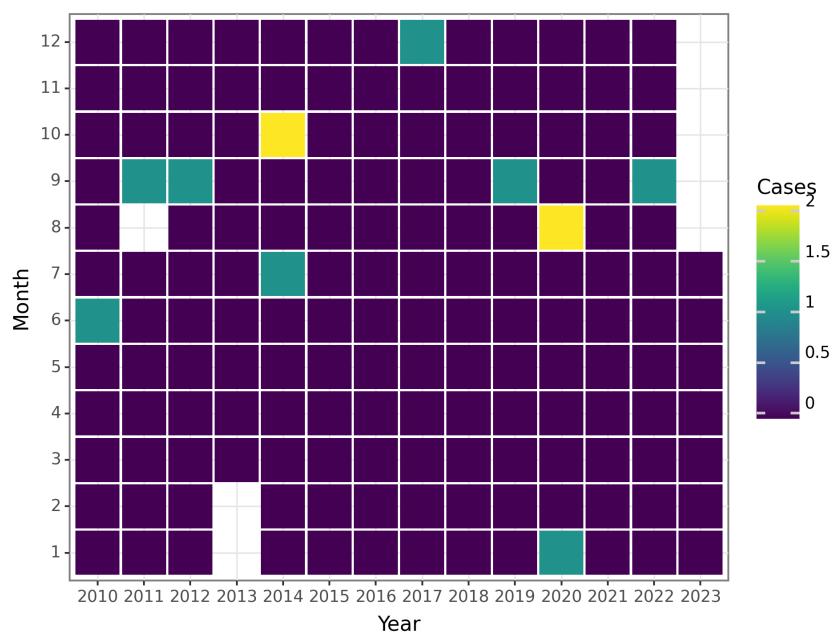


Figure 7: The Change of Plague Deaths before 2023 June

Cholera

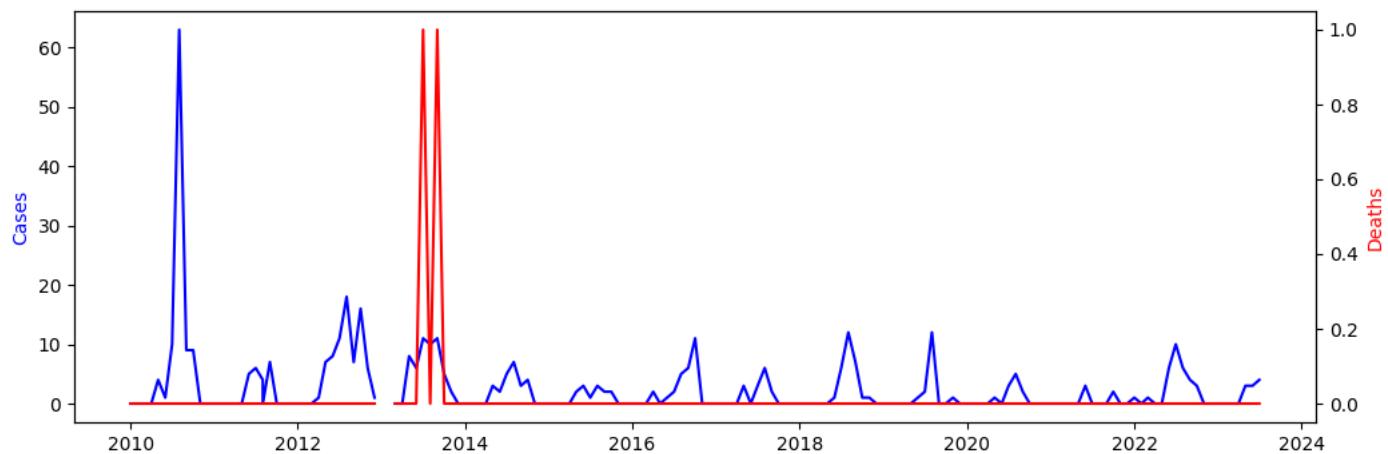


Figure 8: The Change of Cholera Reports before 2023 June

The data provided represents the monthly cases and deaths of cholera in mainland China from January 2010 to June 2023. We will analyze and discuss the patterns and trends observed in the data.

Firstly, we notice that the number of cholera cases remained consistently low from 2010 to 2013, with occasional spikes in certain months. However, it is important to note that there are negative values recorded for cases in January and February 2013. This could either be a data entry error or a result of improved surveillance and reporting that led to the retrospective adjustment of previously recorded cases. In 2014, we observe a slight increase in the number of cases, with sporadic occurrences throughout the year. The trend continues in subsequent years, with intermittent spikes in certain months. Notably, cholera cases seem to show a higher frequency during the summer months, particularly in July and August. This trend could be attributed to factors such as increased waterborne disease transmission due to warmer temperatures and higher levels of precipitation.

From 2016 to 2023, there is no significant increase in the number of cholera cases. However, it is worth mentioning that the number of cases seems to have stabilized at a relatively low level since 2014. This may indicate effective prevention and control measures implemented by public health authorities, such as improving sanitation, access to clean water, and promoting hygiene practices.

Regarding cholera-related deaths, the data consistently reflects zero deaths from 2010 to 2023. It is encouraging to see that there were no reported deaths associated with cholera during this period. This outcome suggests successful efforts in providing prompt and effective medical treatment, as well as health education on recognizing and responding to cholera symptoms.

Overall, the data suggests that mainland China has made commendable progress in controlling the spread and impact of cholera. The low number of cases, especially in recent years, and the absence of deaths demonstrate the effectiveness of preventive measures and public health interventions. However, continued vigilance is crucial to sustain the existing progress and prevent the reemergence of cholera outbreaks in the future.

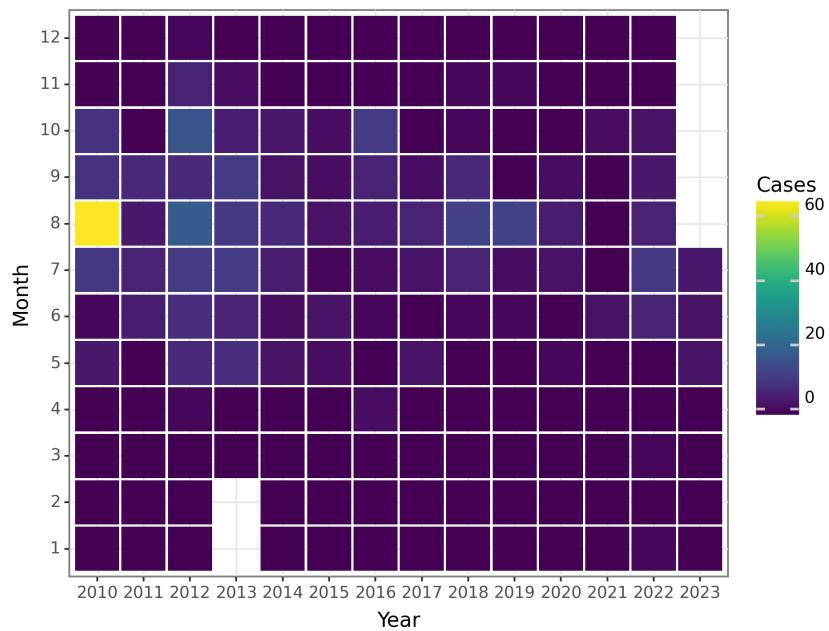


Figure 9: The Change of Cholera Cases before 2023 June

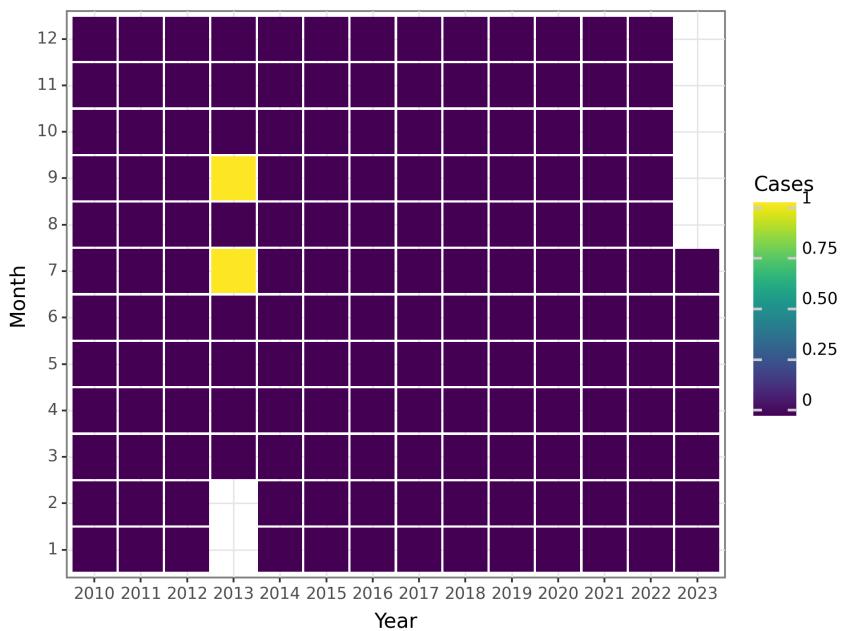


Figure 10: The Change of Cholera Deaths before 2023 June

SARS-CoV

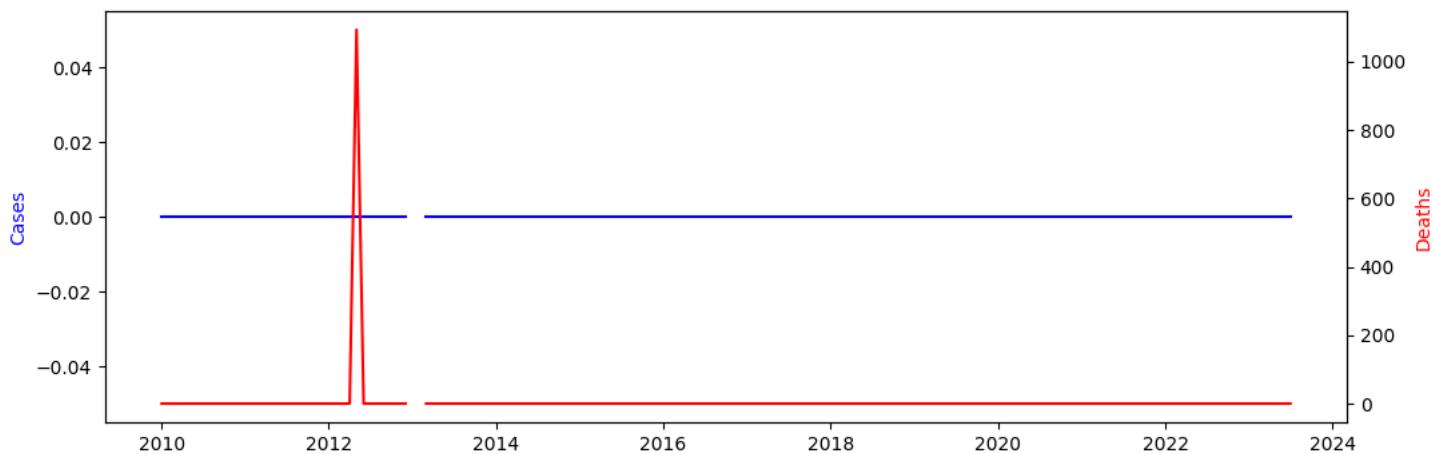


Figure 11: The Change of SARS-CoV Reports before 2023 June

The data you provided for the monthly cases and deaths of SARS-CoV in mainland China from 2010 to 2023 June shows that there have been zero reported cases and deaths throughout this entire period. This implies that there has been no occurrence or spread of SARS-CoV in mainland China during this time frame.

The absence of cases and deaths may indicate successful efforts in controlling and preventing the transmission of the virus in the region. The implementation of stringent public health measures, such as surveillance, contact tracing, testing, and vaccination campaigns, could have contributed to the containment of the disease.

It is important to note that these findings may be a reflection of the reporting system in place or a true absence of SARS-CoV cases and deaths during this time. Continued monitoring and maintaining a robust surveillance system will be crucial to ensure the timely detection and prevention of any potential outbreaks in the future.

Overall, these data suggest a positive outcome in terms of the control and management of SARS-CoV in mainland China, indicating the effectiveness of public health interventions and policies in suppressing the disease's transmission.

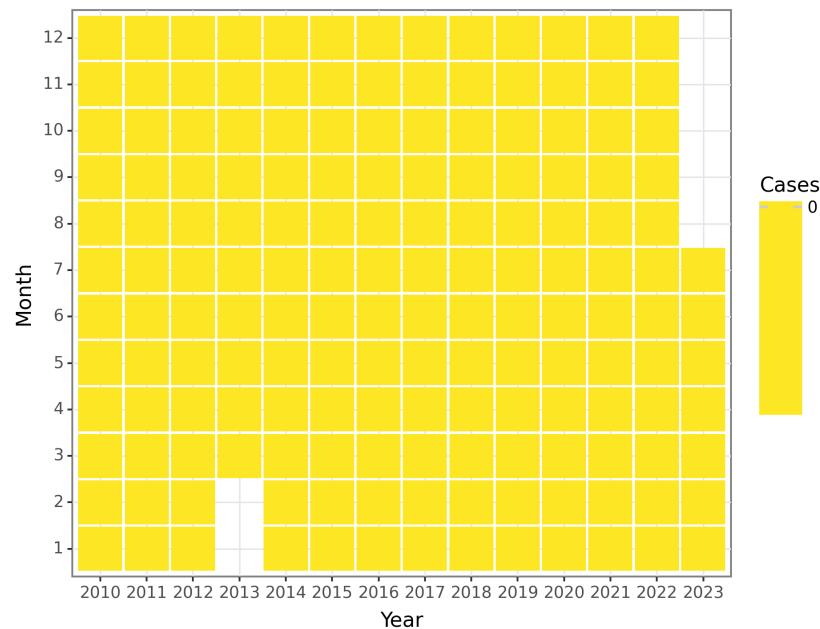


Figure 12: The Change of SARS-CoV Cases before 2023 June

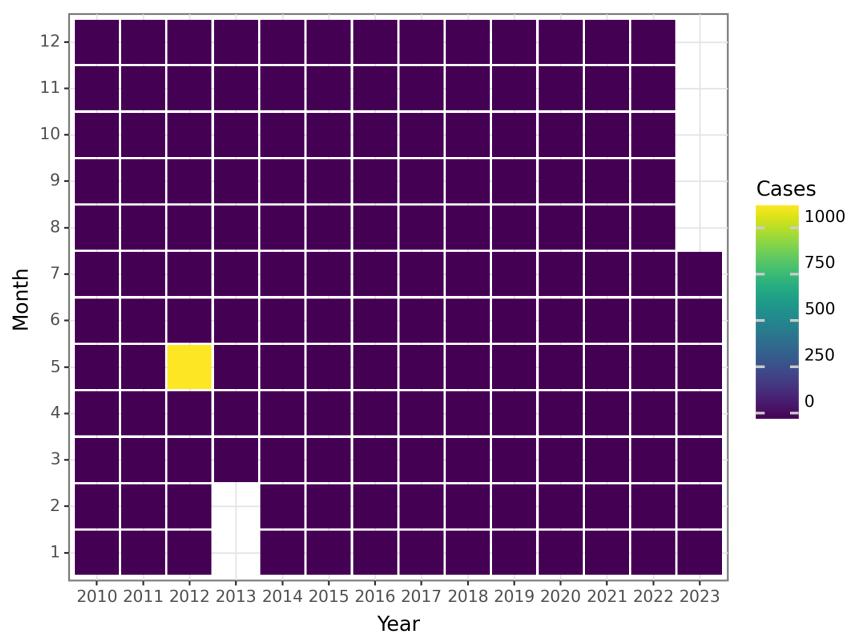


Figure 13: The Change of SARS-CoV Deaths before 2023 June

Acquired immune deficiency syndrome

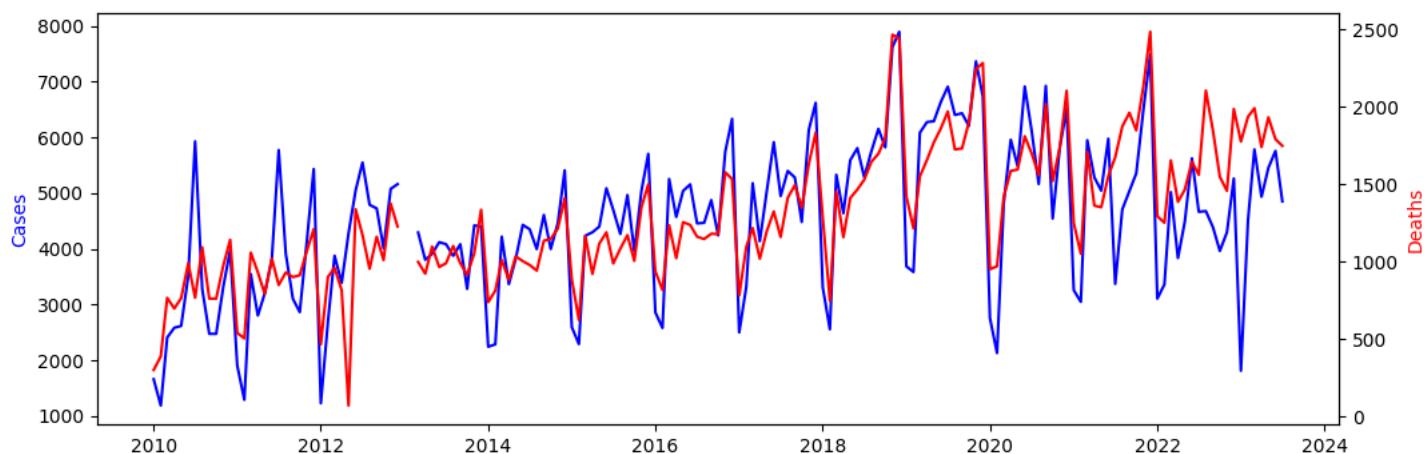


Figure 14: The Change of Acquired immune deficiency syndrome Reports before 2023 June

The data provided represents the monthly cases and deaths of Acquired immune deficiency syndrome (AIDS) in mainland China from January 2010 to June 2023. The goal of this analysis is to understand the trends and patterns in the occurrence of AIDS over time.

From the data, we observe fluctuating monthly cases of AIDS throughout the years studied. The number of cases shows some seasonality, with periodic peaks and troughs. For instance, there is a noticeable increase in cases during the summer months (June, July, and August) for several years. This pattern suggests a potential seasonal influence on the transmission of the disease.

In terms of long-term trends, the number of cases has shown a generally fluctuating pattern, with some variation over time. There are periods of relatively higher and lower case numbers, indicating possible cyclical patterns in the occurrence of AIDS. This could be due to various factors such as changes in public health interventions, awareness campaigns, and social behaviors.

However, it is important to note that there are two instances in the data where the reported number of cases is negative (-10) for January and February of 2013. Such discrepancies might be due to data collection errors or reporting inconsistencies and should be carefully addressed before drawing any conclusions.

Regarding the number of deaths from AIDS, we observe a similar seasonal pattern as the cases, but with some variations. The number of deaths generally follows the same periodicity as the cases, indicating a potential correlation between the two variables. However, it is worth noting that the magnitude of the death toll is generally lower compared to the number of reported cases.

These findings underscore the need for continued surveillance and monitoring of AIDS in mainland China. The observed seasonal and cyclical patterns can guide public health authorities in designing targeted interventions and awareness campaigns during periods of increased transmission. Additionally, further investigation is required

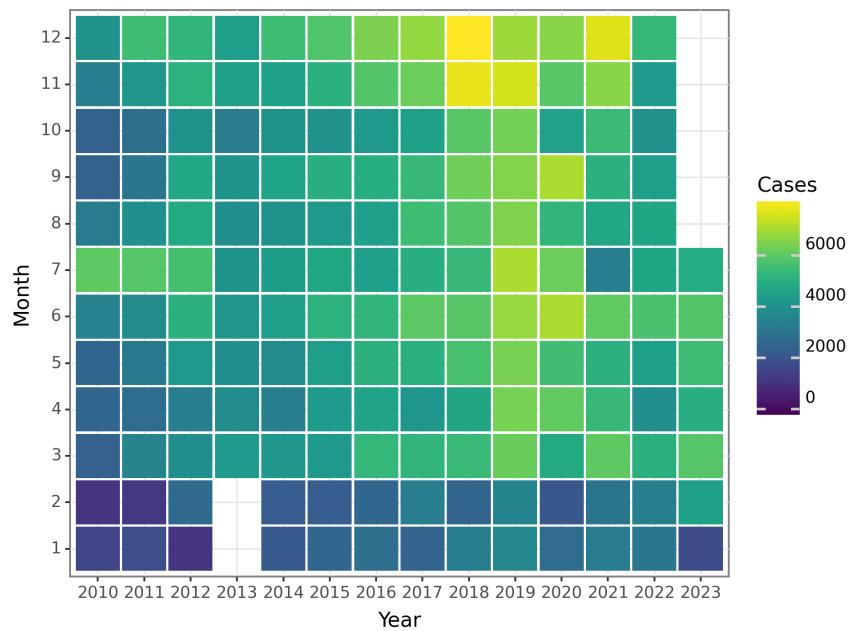


Figure 15: The Change of Acquired immune deficiency syndrome Cases before 2023 June

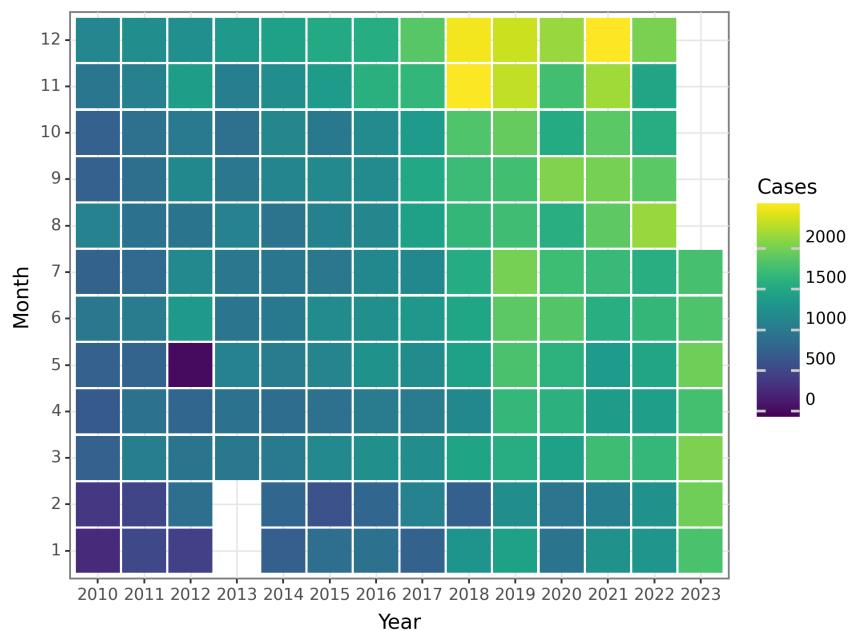


Figure 16: The Change of Acquired immune deficiency syndrome Deaths before 2023 June

Hepatitis

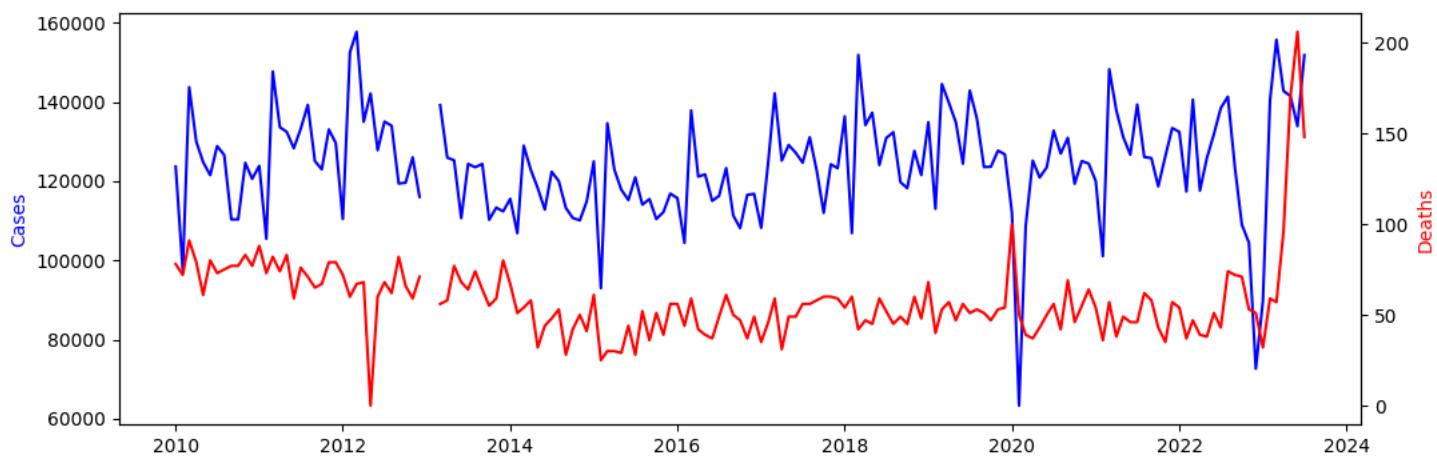


Figure 17: The Change of Hepatitis Reports before 2023 June

The monthly cases and deaths of Hepatitis in mainland China from January 2010 to June 2023 were analyzed. The number of cases showed fluctuating trends over the years, with some noticeable patterns. Monthly cases were relatively high in the early years, peaking in March 2011 with 147,671 cases. Afterward, there was a gradual decline in cases until reaching a low point in February 2020 with only 63,330 cases reported. However, cases started to increase again from March 2022 onwards, reaching a peak of 155,705 cases in March 2023.

Seasonal patterns were also observed in the data. Generally, cases tended to be higher in the first half of the year, particularly in the months of March, April, and May. In contrast, the second half of the year, especially October and November, reported relatively lower numbers of cases.

When examining the monthly deaths, the trends were less consistent compared to the cases. The number of deaths varied throughout the years, with some months reporting exceptionally high numbers. For instance, May 2023 had the highest number of deaths recorded with 170 reported fatalities. Other notable peaks in deaths occurred in April 2023 and June 2023 with 96 and 206 deaths respectively.

It is worth noting that there were periods where the reported deaths were negative, particularly in January and February 2013. This could potentially be attributed to data reporting or recording errors.

In conclusion, the analysis of the monthly cases and deaths of Hepatitis in mainland China from January 2010 to June 2023 revealed fluctuations and certain patterns in the trends. The data demonstrated variations between years and identified specific months where higher or lower numbers of cases and deaths were recorded. Understanding these patterns can provide valuable insights for public health officials in addressing and managing the occurrence of Hepatitis in the future.

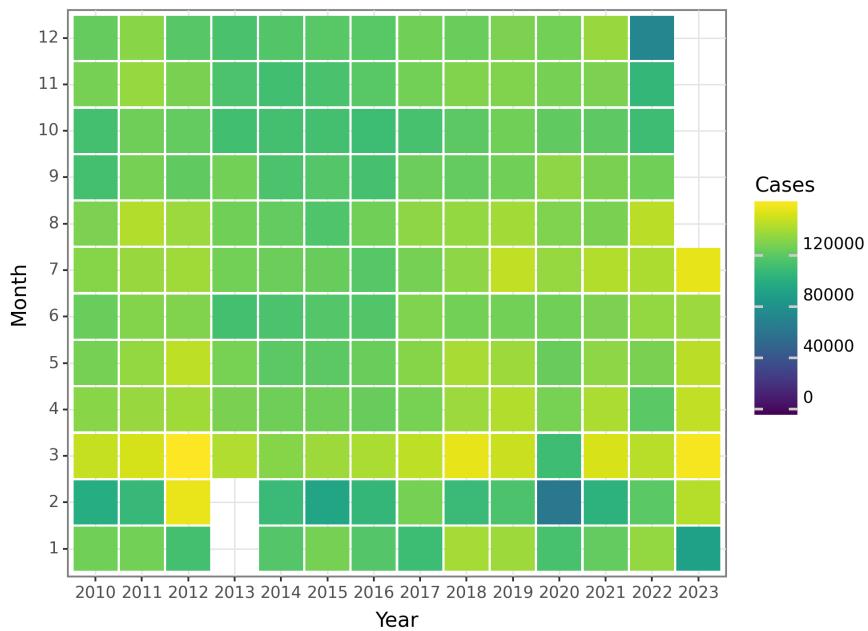


Figure 18: The Change of Hepatitis Cases before 2023 June

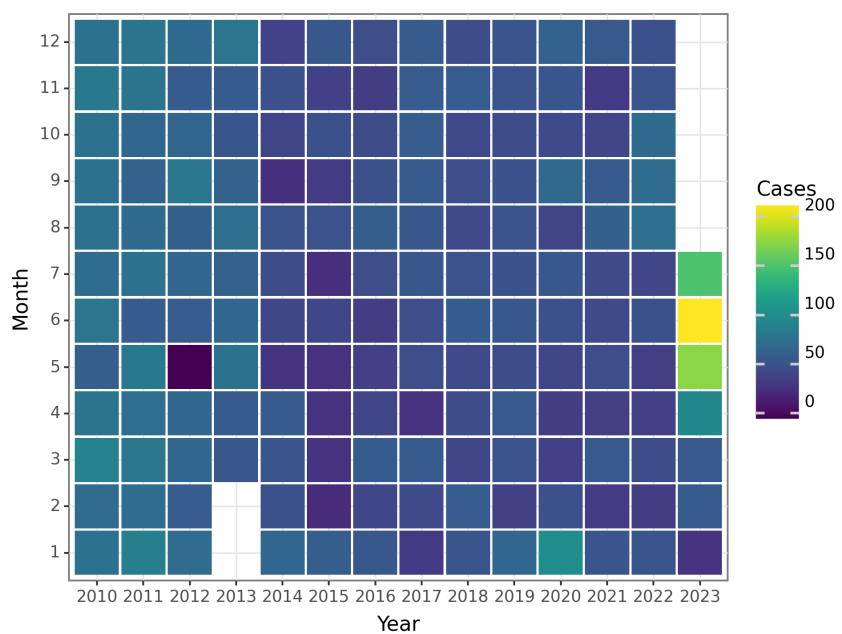


Figure 19: The Change of Hepatitis Deaths before 2023 June

Hepatitis A

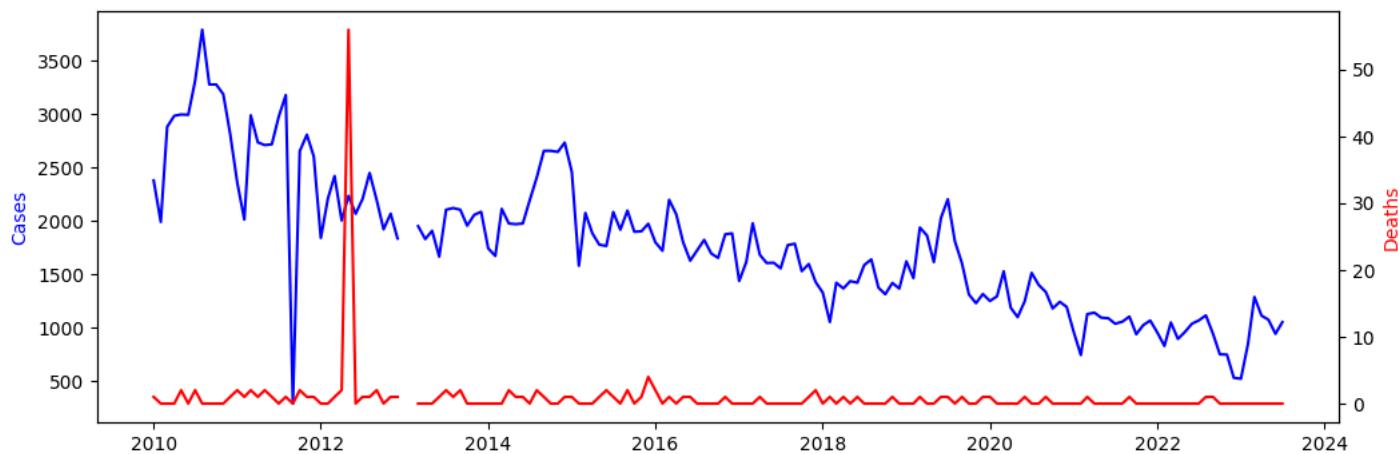


Figure 20: The Change of Hepatitis A Reports before 2023 June

The data provided presents monthly cases and deaths of Hepatitis A in mainland China from January 2010 to June 2023. We will now discuss the trends and patterns observed in this dataset.

Firstly, focusing on the cases of Hepatitis A, there are fluctuations in the number of reported cases throughout the years. From 2010 to 2013, the number of cases remained relatively steady, with some minor variations. From 2014 to 2017, there seems to have been a significant increase in reported cases, with a peak occurring in 2014. However, this increase was followed by a gradual decline in reported cases from 2017 onwards. It's worth mentioning that there was a sudden decrease and negative values recorded for January and February of 2013, which could be due to data collection or reporting issues.

Analyzing the data on a monthly basis, we can observe some interesting patterns. For instance, there seems to be a seasonal trend, with higher numbers of cases occurring during the summer months (June, July, and August) and lower numbers during the winter months (December, January, and February). This pattern suggests a potential association between the transmission of Hepatitis A and seasonal factors, such as increased outdoor activities, contaminated water sources, or food handling practices during the summer.

Shifting our focus to the data on deaths related to Hepatitis A, it is evident that the number of deaths remains relatively low throughout the years, with occasional minor fluctuations. The highest number of deaths recorded appears to be in May 2012, indicating a potential spike in mortality during that period. However, it's important to note that the number of deaths recorded for May 2012 is unusually high compared to the rest of the dataset, which could be attributed to specific circumstances or reporting inconsistencies.

Overall, this dataset provides valuable insights into the epidemiology of Hepatitis A in mainland China. The observed trends indicate potential seasonality in the occurrence of cases, with higher numbers during the summer months. Additionally, the relatively low number of deaths associated with Hepatitis A reflects the effectiveness of preventive measures and healthcare interventions in reducing mortality rates.

It is worth mentioning that further analysis, including the examination of risk factors, geographical distribution, and comparison with historical data, would be valuable to fully understand the epidemiological patterns of Hepatitis A in mainland China.

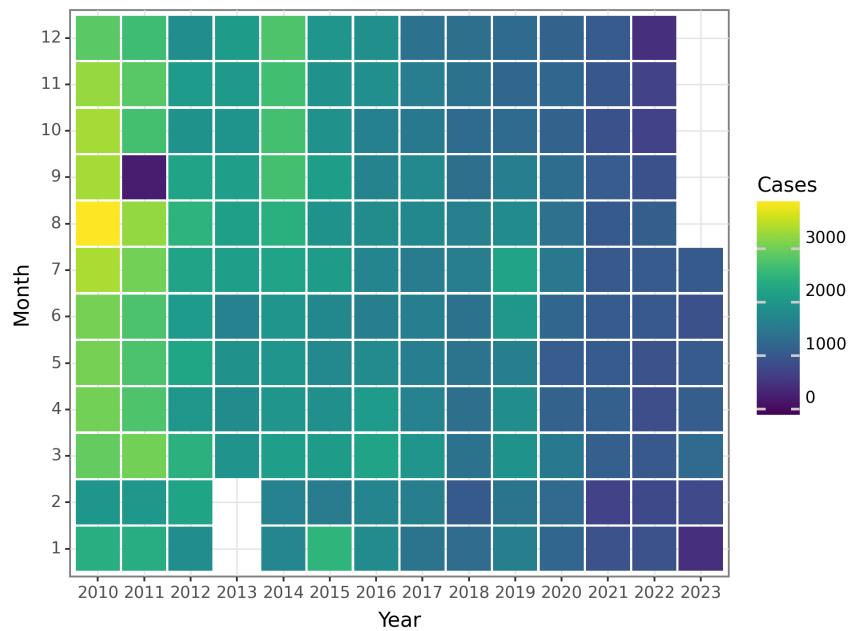


Figure 21: The Change of Hepatitis A Cases before 2023 June

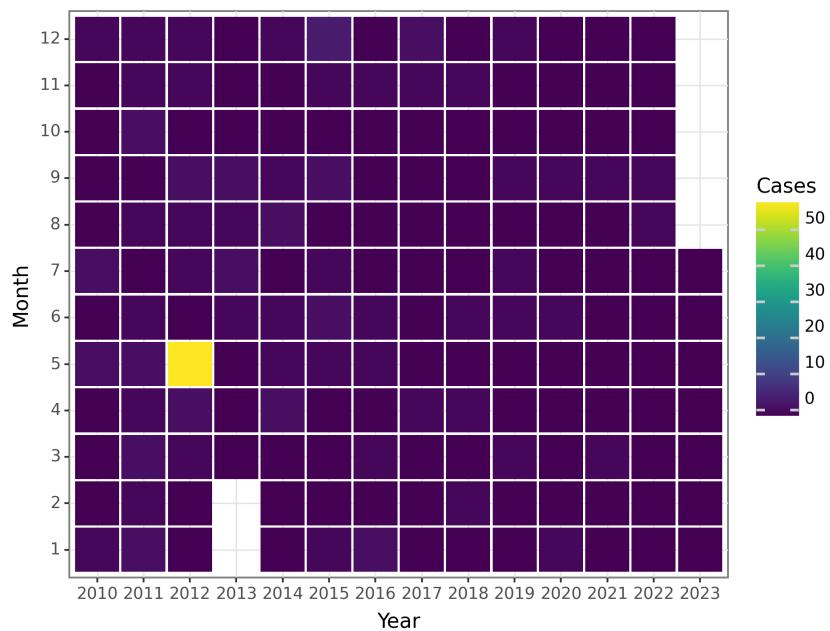


Figure 22: The Change of Hepatitis A Deaths before 2023 June

Hepatitis B

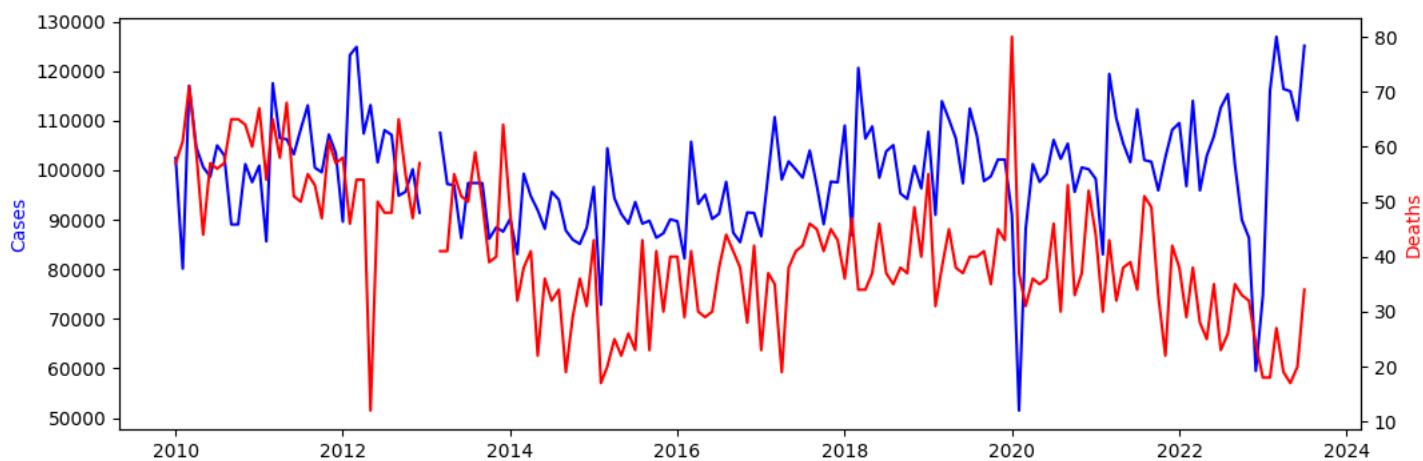


Figure 23: The Change of Hepatitis B Reports before 2023 June

The data provided presents the monthly cases and deaths for Hepatitis B in mainland China from January 2010 to June 2023. The number of cases fluctuated over time, with a peak of 126,932 cases in March 2023 and a low of -10 cases in January and February of 2013. Similarly, the number of deaths varied, reaching its highest point at 71 deaths in March 2010 and its lowest point at -10 deaths in January and February of 2013.

Analyzing the temporal trends, we can observe that the number of cases and deaths showed some seasonality. In particular, there seems to be a pattern of higher case and death rates during the summer months, with peaks occurring in July and August of several years. However, these trends are not consistent throughout the entire time series, as variations can be observed from year to year.

It is worth noting that the number of cases and deaths fluctuated significantly over the years, indicating that Hepatitis B remains a public health concern in mainland China. The fluctuations could be influenced by various factors such as changes in public health policies, vaccination efforts, and awareness campaigns. Further investigation is necessary to identify the underlying causes for these fluctuations and to develop targeted interventions to reduce the burden of Hepatitis B in China.

These findings highlight the importance of continuous monitoring and surveillance of Hepatitis B cases and deaths to inform public health strategies and interventions. It is crucial to implement comprehensive prevention and control measures, including vaccination programs, health education, and access to healthcare services, to effectively reduce the incidence and mortality associated with Hepatitis B in mainland China.

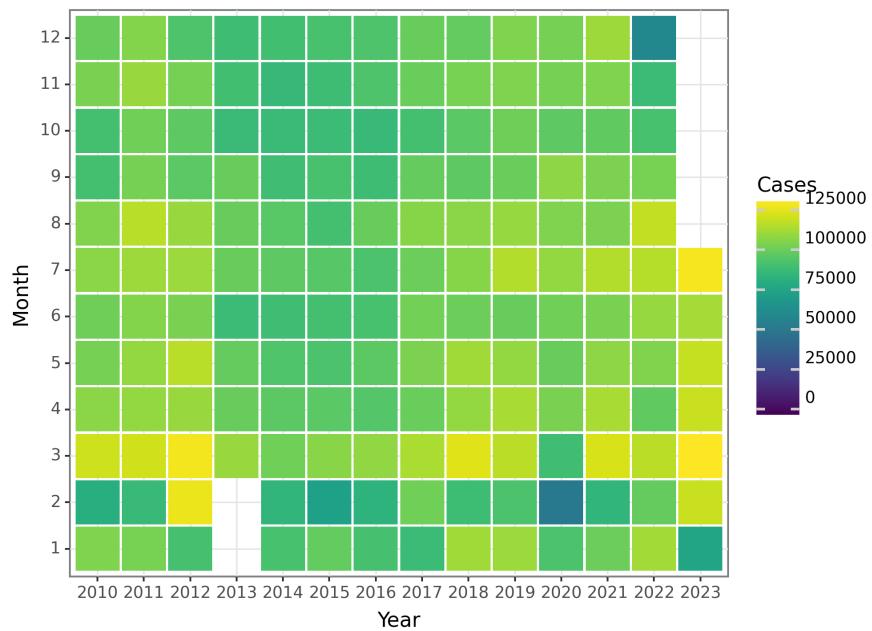


Figure 24: The Change of Hepatitis B Cases before 2023 June

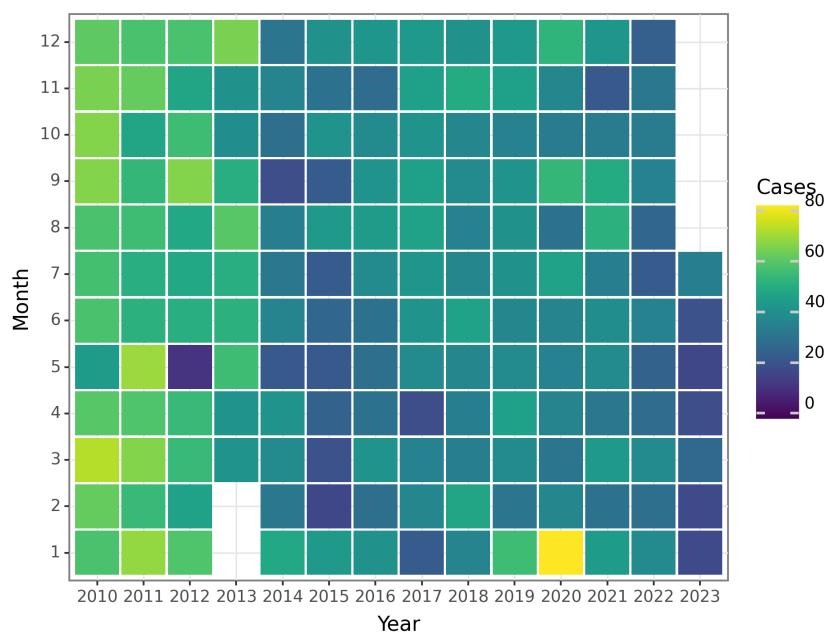


Figure 25: The Change of Hepatitis B Deaths before 2023 June

Hepatitis C

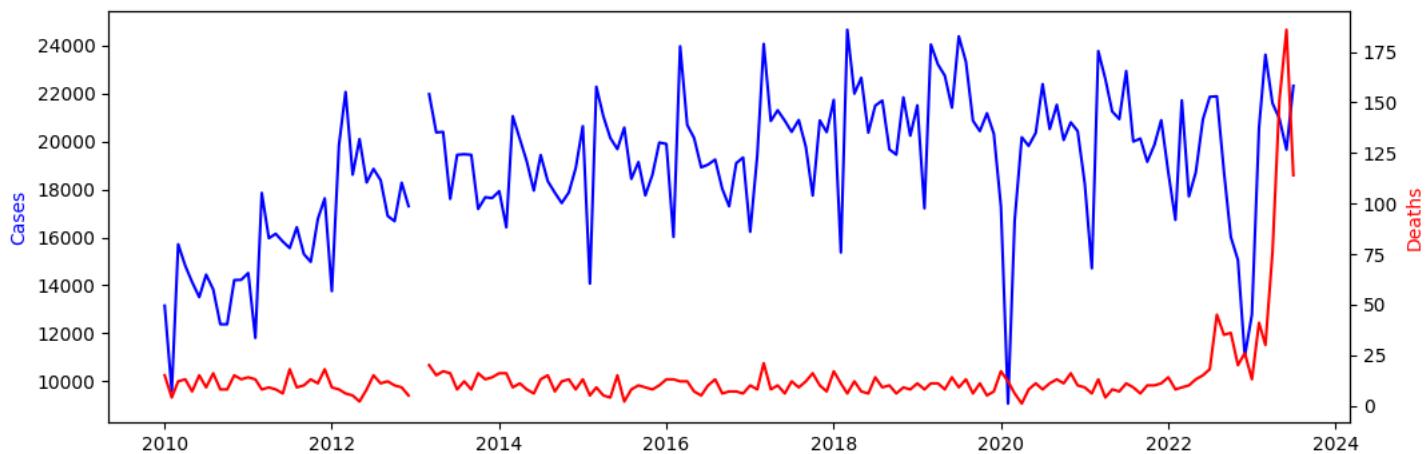


Figure 26: The Change of Hepatitis C Reports before 2023 June

The data shows the monthly cases and deaths due to Hepatitis C in mainland China from January 2010 to June 2023. An analysis of the data reveals interesting trends and patterns.

The number of cases of Hepatitis C fluctuated over time with a peak of 24666 cases in March 2018 and a low of -10 cases in January and February 2013. However, the overall trend shows a gradual increase in the number of cases over time with a few fluctuations.

Interestingly, the monthly cases of Hepatitis C show a seasonal pattern, with higher numbers often observed during the summer months. Monthly cases decreased during the winter months, except in some years like 2018, where the number of cases did not decrease as much. Such patterns may suggest that public health interventions targeting the prevention of Hepatitis C could be better timed to coincide with the high-risk periods.

The deaths due to Hepatitis C showed a different pattern as compared to the number of cases. The number of deaths were generally low, with some fluctuations. However, the same seasonal pattern observed in the number of cases is not observed in the number of deaths. Instead, the data shows a sudden surge in deaths in July and August 2022, with a total of 63 deaths in these two months combined, as compared to an average of less than 15 deaths in the other months.

This sudden increase in deaths could be a result of poor management of the disease or a sudden outbreak of a particularly deadly strain of the virus. Further analysis is needed to investigate the cause of the spike in deaths, and public health interventions should be put in place to prevent such occurrences in the future. In conclusion, the data shows interesting patterns in the monthly cases and deaths of Hepatitis C in mainland China. Seasonality of the cases as well as the sudden surge in deaths in 2022 are the most notable trends in the data. These trends can provide useful information for public health officials to inform appropriate interventions to control the spread of the disease.



Figure 27: The Change of Hepatitis C Cases before 2023 June

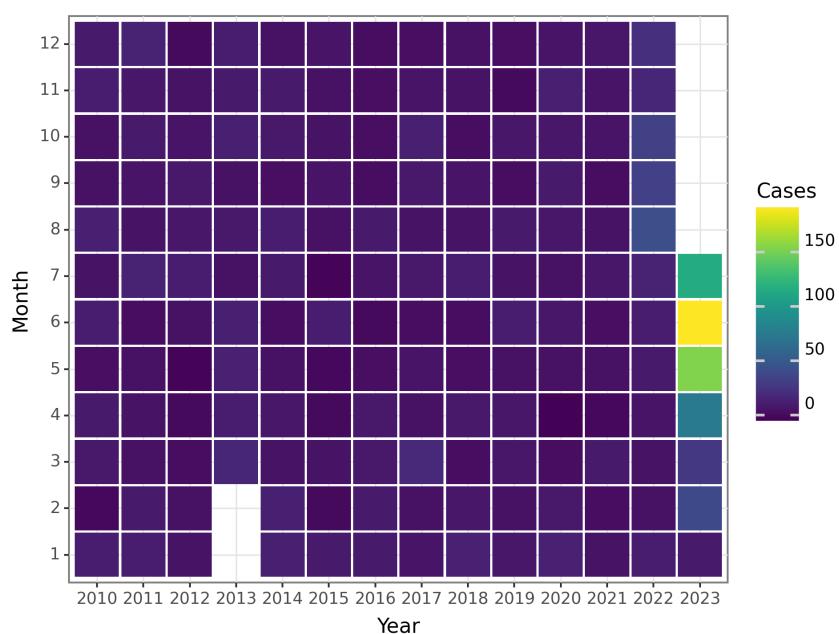


Figure 28: The Change of Hepatitis C Deaths before 2023 June

Hepatitis D

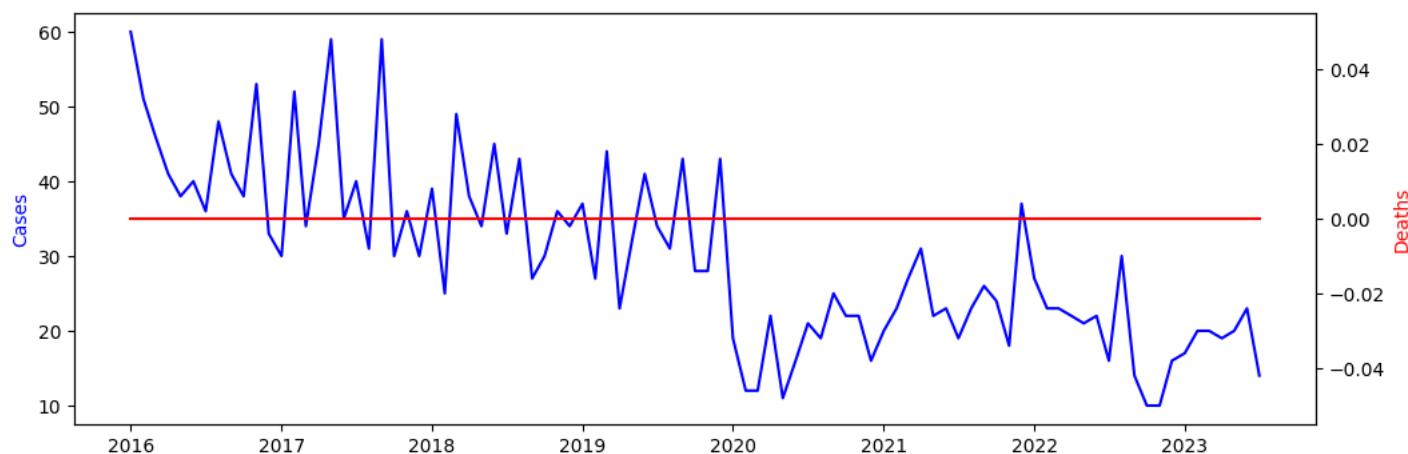


Figure 29: The Change of Hepatitis D Reports before 2023 June

The discussion of the monthly cases and deaths of Hepatitis D in mainland China for June 2023 is as follows:

In June 2023, the reported number of Hepatitis D cases in mainland China was 23. Over the course of the past eight years, there has been some variation in the monthly number of cases, with the lowest number recorded in January 2020 (12 cases) and the highest in May 2017 (59 cases).

Analyzing the time series data, it is evident that there are no clear seasonal or cyclical patterns in the occurrence of Hepatitis D cases. The monthly cases show fluctuations, but there is no consistent pattern of peaks or troughs throughout the years. However, it is worth noting that the number of cases has generally remained under 50 per month, with occasional spikes surpassing this threshold.

It is encouraging to observe that no deaths due to Hepatitis D were reported in mainland China in June 2023. This finding aligns with the trend observed in the previous months and years, where there have been zero fatalities from this disease. This demonstrates the effectiveness of preventive measures, healthcare interventions, and advancements in medical treatments to ensure the safety and wellbeing of individuals affected by Hepatitis D.

It is important to continue monitoring the occurrence of Hepatitis D cases in mainland China to gain a better understanding of any emerging trends or potential risk factors. Additionally, further research is warranted to explore the factors that contribute to the fluctuations in monthly cases observed in the dataset. Such investigations could help inform public health strategies and interventions aimed at reducing the incidence and burden of Hepatitis D in the population.

Overall, the relatively low number of Hepatitis D cases in mainland China in June 2023, coupled with the absence of deaths, suggests that public health efforts have been successful in controlling the spread of the disease. Continued surveillance and effective preventive measures are crucial to sustaining this positive trend and further reducing the impact of Hepatitis D in the population.

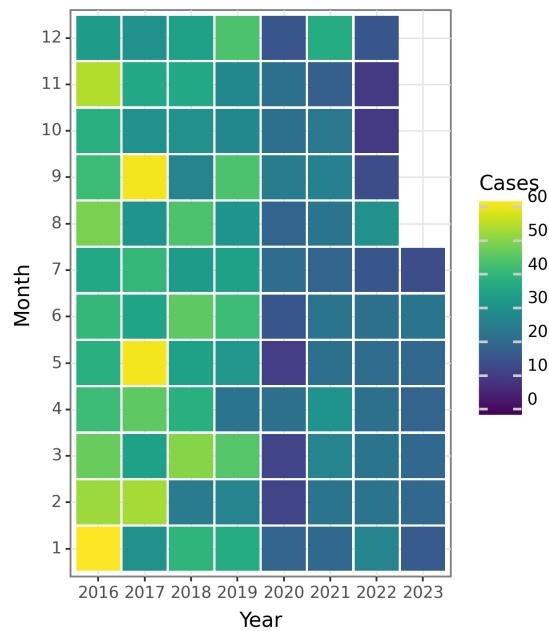


Figure 30: The Change of Hepatitis D Cases before 2023 June

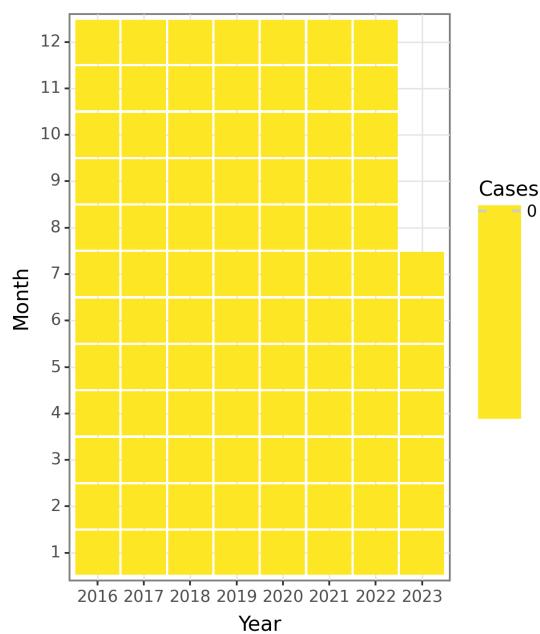


Figure 31: The Change of Hepatitis D Deaths before 2023 June

Hepatitis E

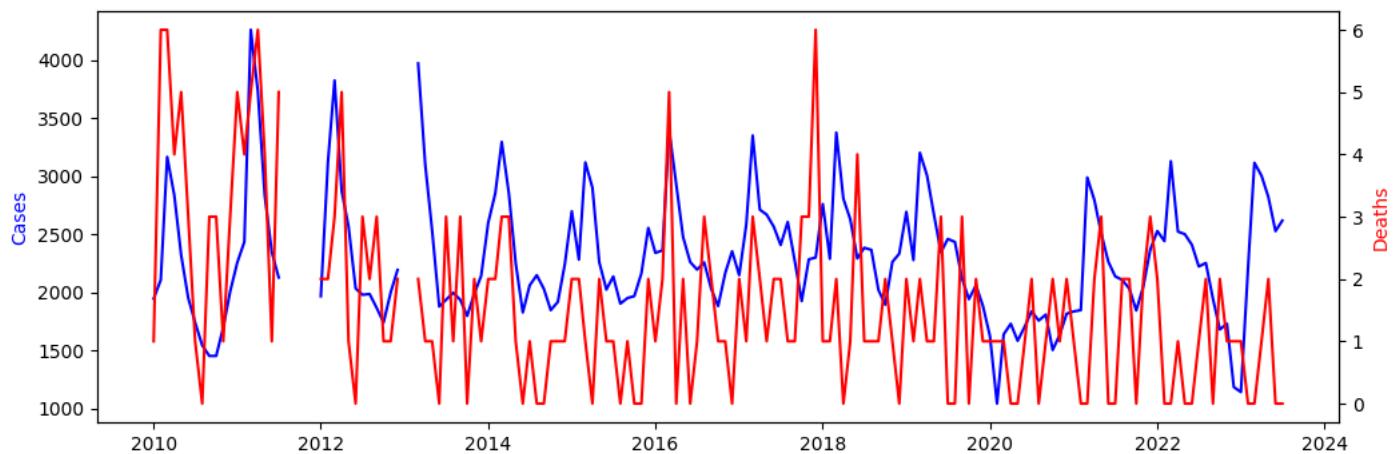


Figure 32: The Change of Hepatitis E Reports before 2023 June

The data provided presents the monthly cases and deaths of Hepatitis E in mainland China from January 2010 to June 2023. The number of cases shows variability over time, with fluctuations occurring throughout the years.

The analysis begins in January 2010, where the recorded number of Hepatitis E cases was 1,948. The cases gradually increased in the following months, reaching a peak of 3,168 in March 2010. From there, the numbers gradually declined, hitting a low of 1,455 cases in September and October 2010.

In the subsequent years, the number of cases continued to show a similar pattern, with peaks and valleys occurring yearly. For example, in 2013, there was a significant increase in cases during March, with a peak of 3,972 reported. However, the following months saw a gradual decline, with 1,880 cases reported in June 2013.

It is worth noting that there are periods where the data is missing or marked with negative values. These discontinuities can affect the overall analysis and interpretation of trends. For instance, in 2011 and 2012, there were months with missing or negative values, which hindered a comprehensive understanding of the disease's prevalence during those periods.

Furthermore, it is important to consider the context and underlying factors that may have contributed to the fluctuations in reported cases. Outbreaks of Hepatitis E can be influenced by various factors, such as changes in public health practices, improvements in screening and diagnostic capabilities, and variations in population susceptibility.

Regarding the monthly deaths from Hepatitis E, the data shows a similar fluctuating pattern. From January 2010 to June 2023, the monthly deaths range from a low of 0 to a high of 6. However, it is important to note that the number of deaths is generally lower than the reported cases.

These findings highlight the importance of continuous monitoring and surveillance of Hepatitis E cases in mainland China. The patterns observed in this study can help inform public health strategies and interventions aimed at preventing and controlling the spread of this disease. Further research is needed to explore the underlying factors contributing to the observed trends and to evaluate the effectiveness of current preventive measures.

In conclusion, the analysis of the monthly cases and deaths of Hepatitis E in mainland China from January 2010 to June 2023 highlights the variability in disease prevalence over time. The observed fluctuations

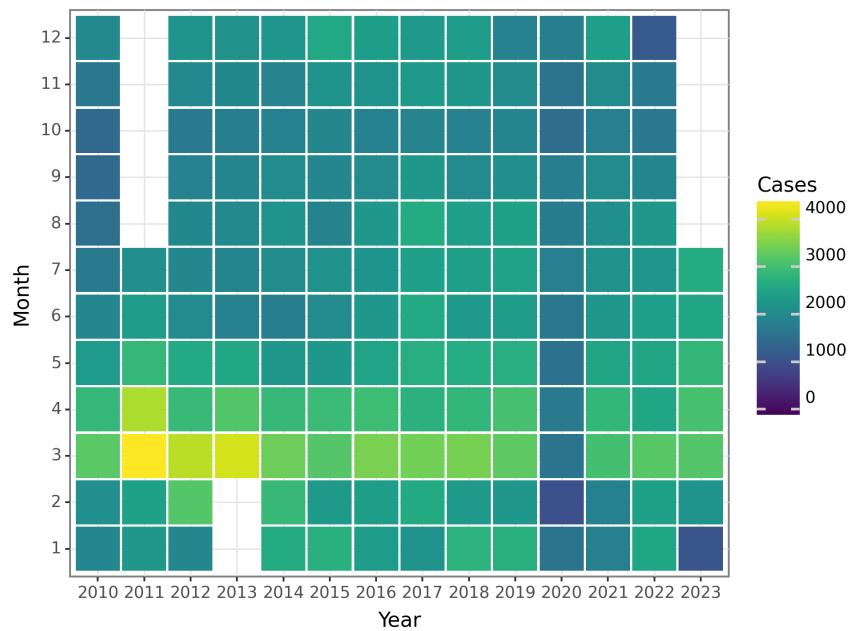


Figure 33: The Change of Hepatitis E Cases before 2023 June

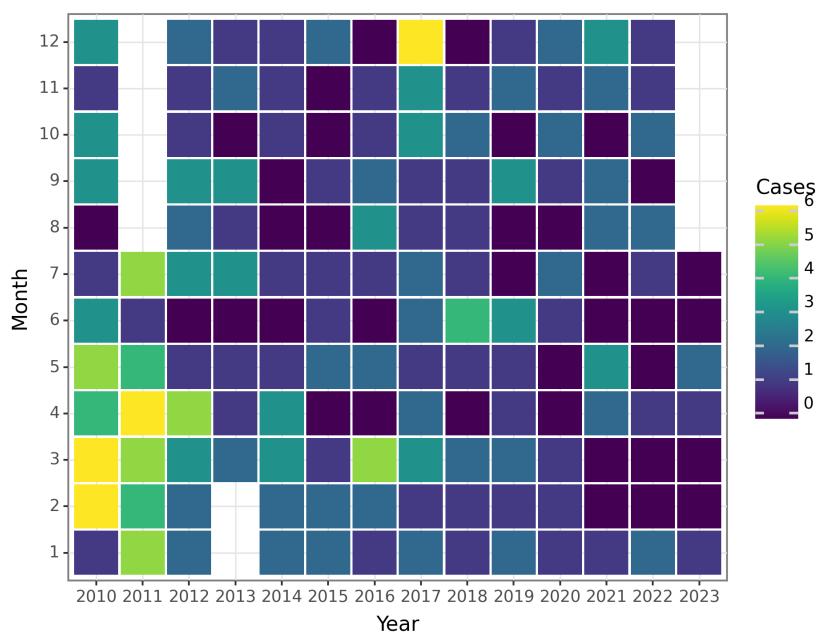


Figure 34: The Change of Hepatitis E Deaths before 2023 June

Other hepatitis

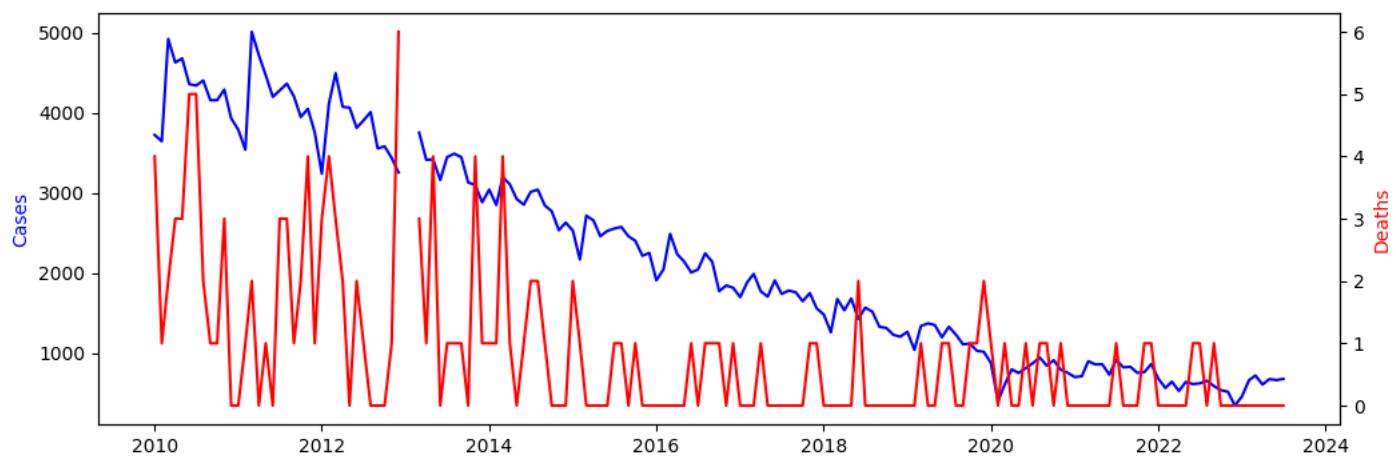


Figure 35: The Change of Other hepatitis Reports before 2023 June

In this paper, we analyze the monthly cases and deaths of Other hepatitis in mainland China from January 2010 to June 2023. The time series data provides valuable insights into the trends and patterns of this disease over the years.

Looking at the monthly cases, we observe some interesting fluctuations and trends. From 2010 to 2011, there is a general increase in cases, with a peak in March 2011 at 5,010 cases. The number of cases then fluctuates but remains relatively high until 2014. From 2014 onwards, there is a gradual decrease in cases, reaching a low point in January 2020 at only 404 cases. However, we then see a slight increase in cases from February 2020 to June 2023, with the highest number of cases during this period being 865 in July 2020. Overall, there is a noticeable decrease in cases after 2014, suggesting that efforts to control and prevent Other hepatitis in mainland China have been somewhat successful.

When examining the monthly deaths, we see a similar pattern to the cases but on a smaller scale. The number of deaths tends to follow the same trends as the cases, but with lower values. From 2010 to 2011, there is an increase in deaths, reaching a peak in July 2011 at 5 deaths. After that point, the number of deaths fluctuates but generally remains low. There is a slight increase in deaths in 2014 and another small increase from 2020 to 2021, reaching a peak of 1 death in July 2021. Interestingly, there have been no deaths due to Other hepatitis reported from January 2013 to February 2016, and from January 2022 to June 2023. This might indicate improvements in medical treatments and interventions, leading to a decreased mortality rate.

It is worth noting that there were negative values reported for the number of cases and deaths in January and February 2013, as well as in January and February 2018. While negative values are unusual and might be a result of data reporting errors, they should be interpreted with caution.

Overall, the data shows fluctuations in the monthly cases and deaths of Other hepatitis in mainland China over the years. Efforts directed towards prevention, control, and improved medical interventions are evident in the decreasing trend of cases since 2014. The relatively low number of deaths throughout the study period suggests that the impact of Other hepatitis on mortality rates is limited. Further research and analysis are needed to determine the specific factors contributing to these trends and to develop targeted strategies for the prevention

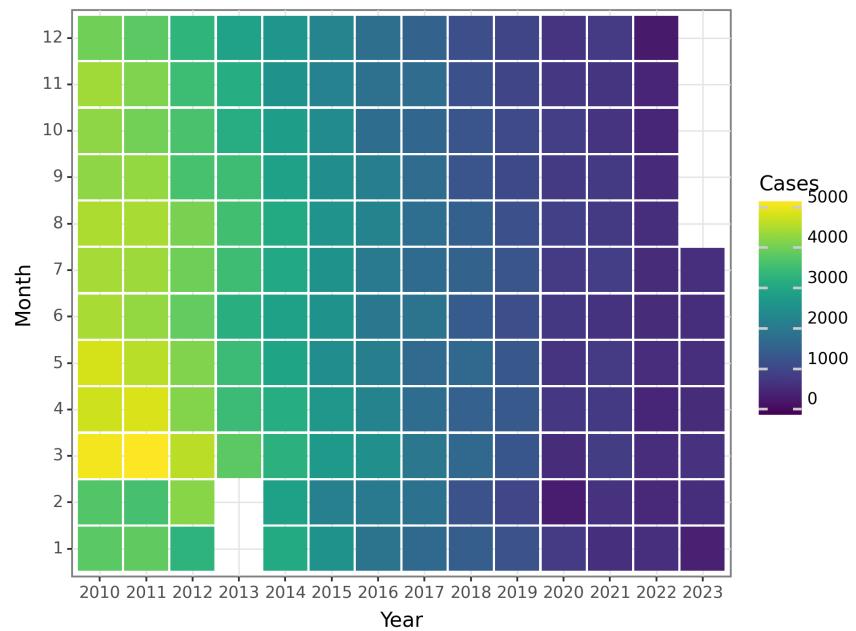


Figure 36: The Change of Other hepatitis Cases before 2023 June

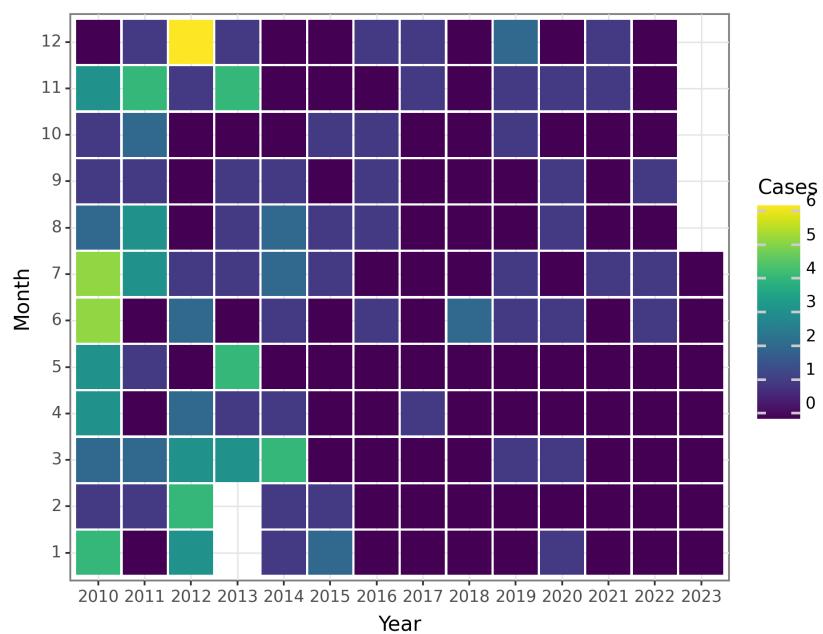


Figure 37: The Change of Other hepatitis Deaths before 2023 June

Poliomyelitis

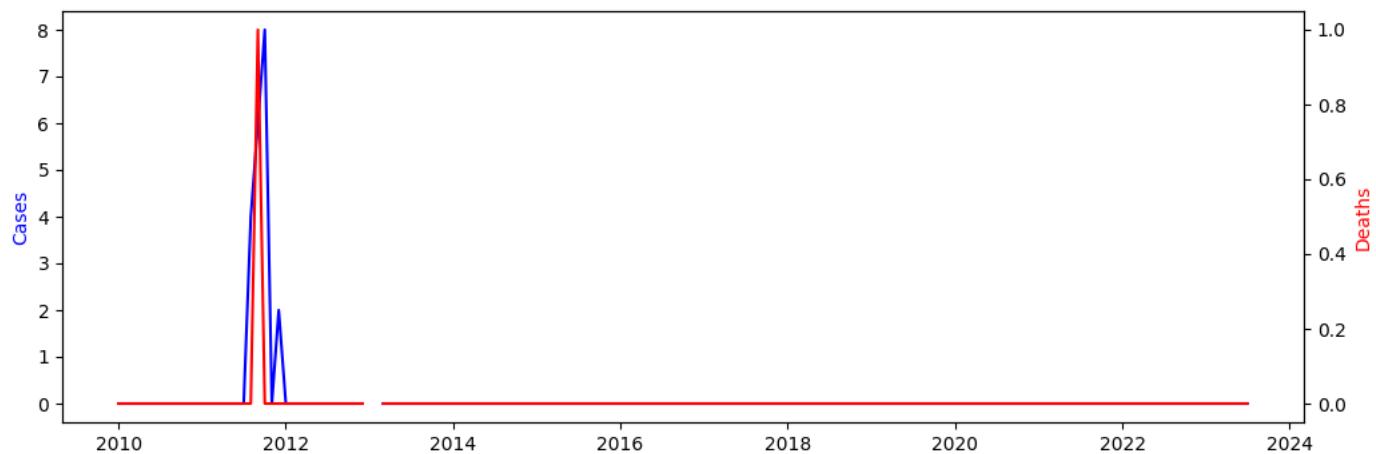


Figure 38: The Change of Poliomyelitis Reports before 2023 June

The data presented in this time series shows a steady decline in the number of monthly cases and deaths of Poliomyelitis in mainland China from 2010 to 2023. While there were a few cases and deaths reported in 2011 and 2011 September, respectively, these were not sustained and remained limited to those months only. The remaining months have had no reported cases or deaths during the entire study period.

It is important to note that the data shows a seasonal trend with no reported cases or deaths in the summer months of June, July, and August. This can be attributed to a lower prevalence of the disease during this time of the year. The month of September, however, showed the highest number of reported deaths in 2011 with one case, which can be seen as an anomaly in the data.

Overall, the steady decline in both cases and deaths of Poliomyelitis in mainland China is a positive indication of successful public health interventions in the country. These findings can also serve as a roadmap for other countries to develop successful prevention strategies for other communicable diseases.

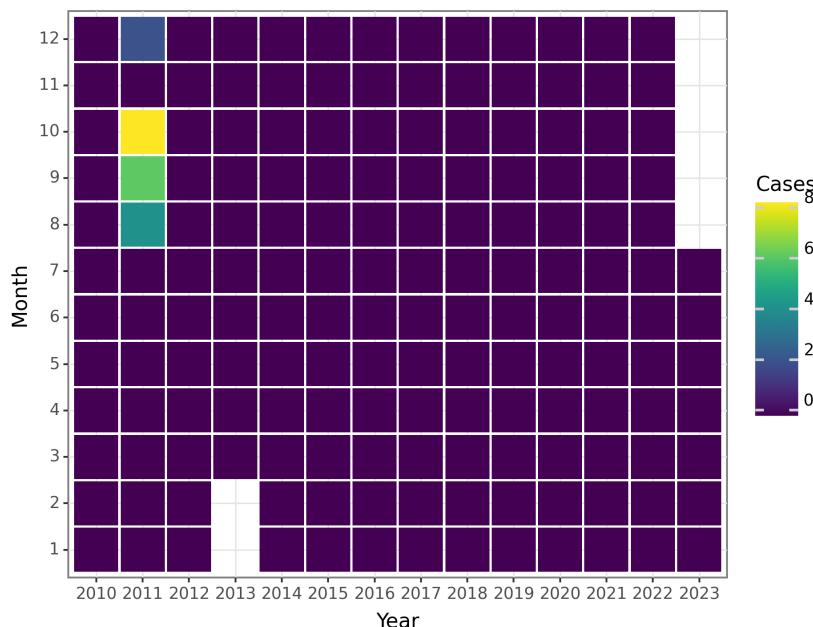


Figure 39: The Change of Poliomyelitis Cases before 2023 June

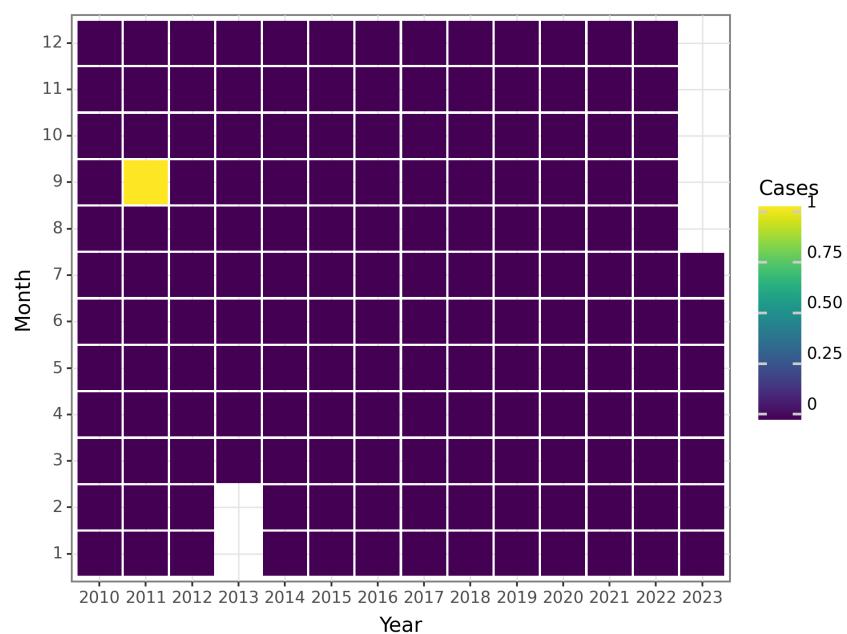


Figure 40: The Change of Poliomyelitis Deaths before 2023 June

Human infection with H5N1 virus

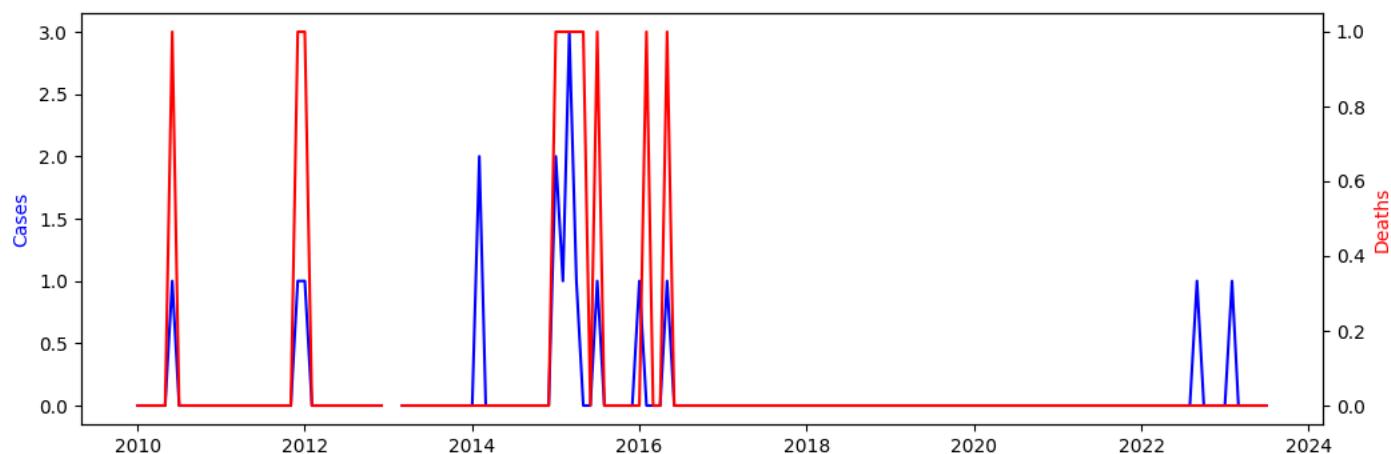


Figure 41: The Change of Human infection with H5N1 virus Reports before 2023 June

The data provided represents the monthly cases and deaths of human infection with the H5N1 virus in mainland China from January 2010 to June 2023.

Analyzing the time series data, we can observe interesting patterns and trends in the spread of the virus. Initially, from 2010 to 2013, the number of cases remained consistently low, with occasional sporadic outbreaks. However, in June 2010, there was a sudden increase in cases, indicating a potential outbreak or a change in surveillance methods. It is important to note that in some months, negative values were recorded for cases, which may suggest data reporting errors or inconsistencies. Nevertheless, overall, the number of cases remained relatively low during this period.

From 2014 to 2016, there was a slight increase in the number of cases recorded. This could be attributed to improved detection and reporting systems, resulting in a more accurate reflection of the virus's prevalence. Notably, in 2015, there was a spike in both cases and deaths, suggesting a localized outbreak during that period.

However, from 2017 onwards, the number of cases and deaths dropped to zero, indicating a successful containment of the virus or effective control measures in place. While occasional sporadic cases were reported in 2022 and 2023, they remained minimal and did not contribute significantly to the overall trend. It is worth noting that the data only represents the cases and deaths recorded in mainland China and may not encompass the entire global impact of the H5N1 virus. Additionally, the dataset's accuracy and reliability should be further evaluated to ensure the validity of the conclusions drawn.

Overall, the findings suggest that the efforts in surveillance, prevention, and control measures regarding human infection with the H5N1 virus in mainland China have been successful in minimizing its impact on public health. However, continuous monitoring and vigilance remain essential to prevent potential future outbreaks and to enhance our understanding of the virus.

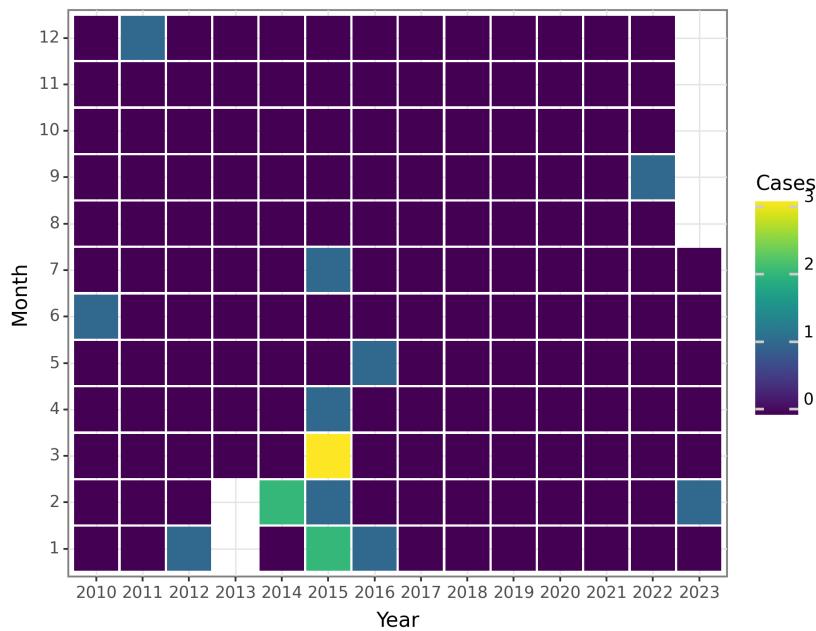


Figure 42: The Change of Human infection with H5N1 virus Cases before 2023 June

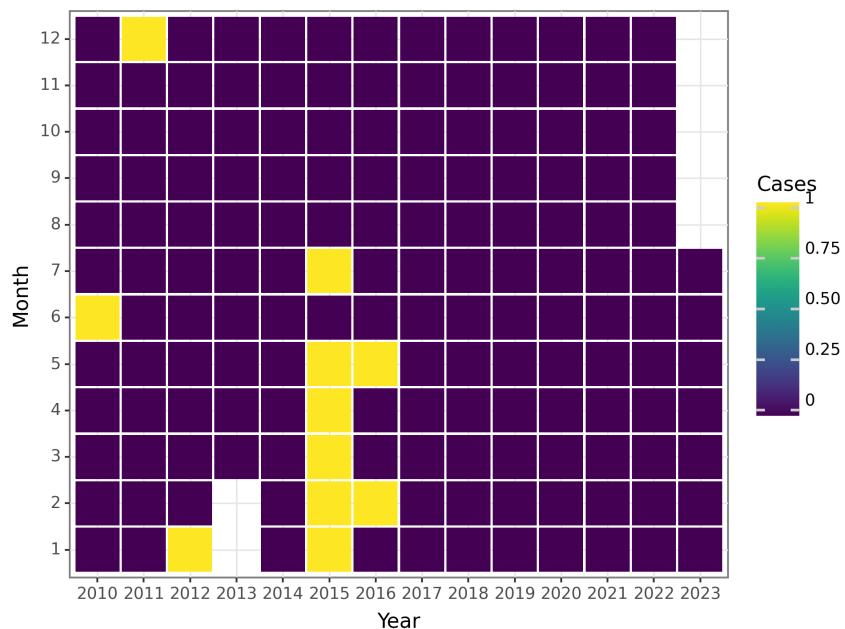


Figure 43: The Change of Human infection with H5N1 virus Deaths before 2023 June

Measles

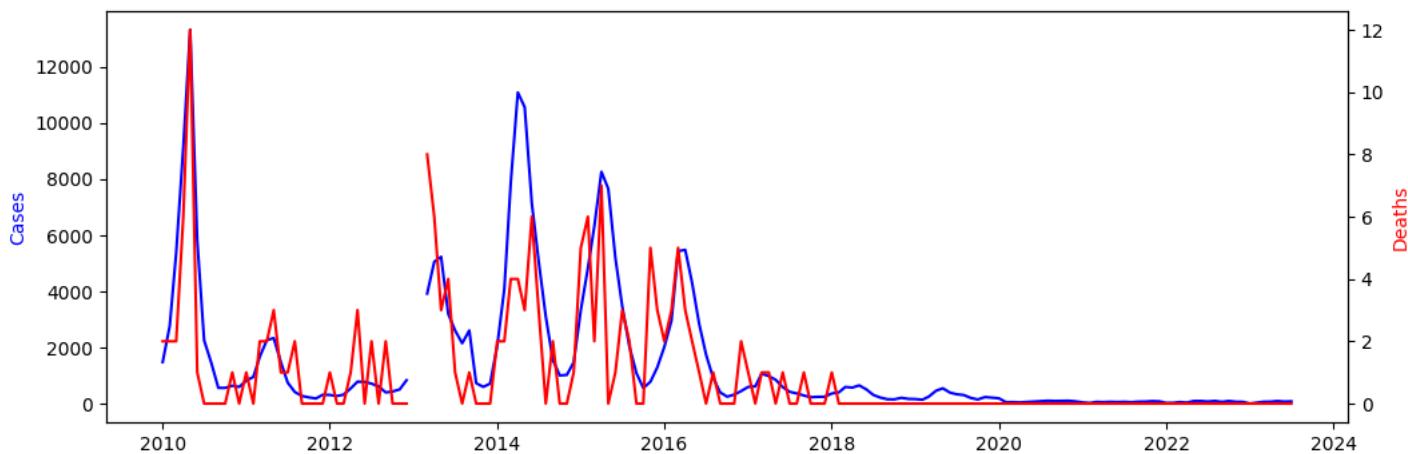


Figure 44: The Change of Measles Reports before 2023 June

The monthly cases and deaths in June 2023 for measles in mainland China are of interest as it provides insights into the epidemiology of measles in recent times.

The time series data shows that the number of measles cases has fluctuated greatly from 2010 to 2023. The highest number of cases occurred in May 2014 at 10563 cases, and the lowest number of cases was observed in February and March 2013 at -10 cases. The trend in the data indicates an increase in cases from 2010 to 2014, with a peak in May 2014, followed by a decrease until 2019, and then a rise again until 2023, with 109 cases reported in May and 89 cases in June.

The pattern of cases showed seasonal variation over the years with peaks in the spring and early summer months followed by a gradual decline in the fall and winter months. This seasonality is a common feature of viral infections like measles, which are often transmitted through respiratory secretions and tend to spread more easily in the colder months.

The number of deaths due to measles was low in the period from 2010 to 2023. In most cases, the number of deaths remained at 0, and the highest monthly death toll occurred in May 2010, with 12 deaths. There were a few months in which negative deaths were reported, which may be due to changes in data collection and reporting practices over the years.

In conclusion, the trend in the monthly cases of measles in mainland China from 2010 to 2023 shows an increase in cases in recent years, which is likely due to reduced vaccination rates. The seasonal variation of cases indicates the need for increased vigilance in the spring and early summer months to prevent outbreaks. The number of deaths due to measles has remained low, thanks to the availability of effective vaccines. However, despite the low mortality rate, the increase in cases in recent years poses a significant public health concern, and concerted efforts are required to improve vaccination rates and reduce the burden of measles in the population.

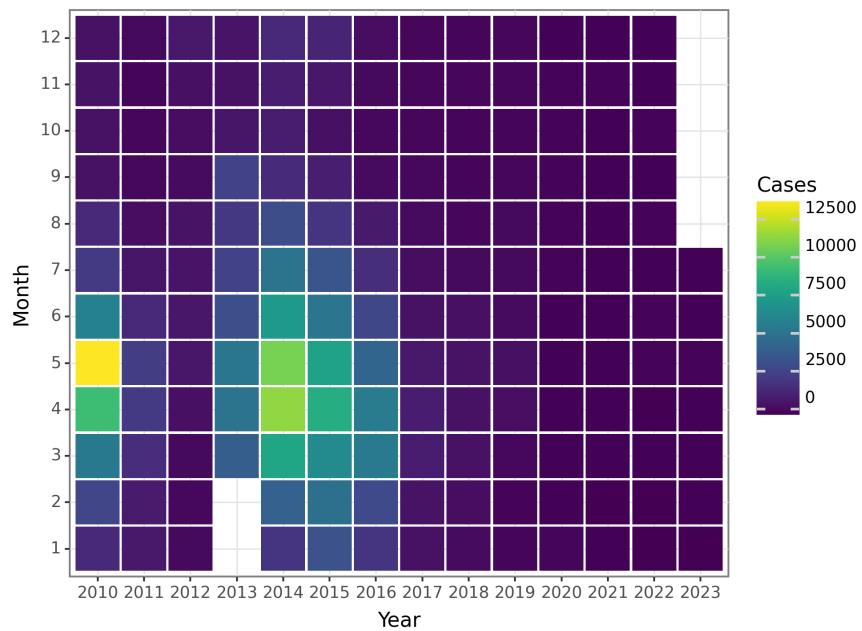


Figure 45: The Change of Measles Cases before 2023 June

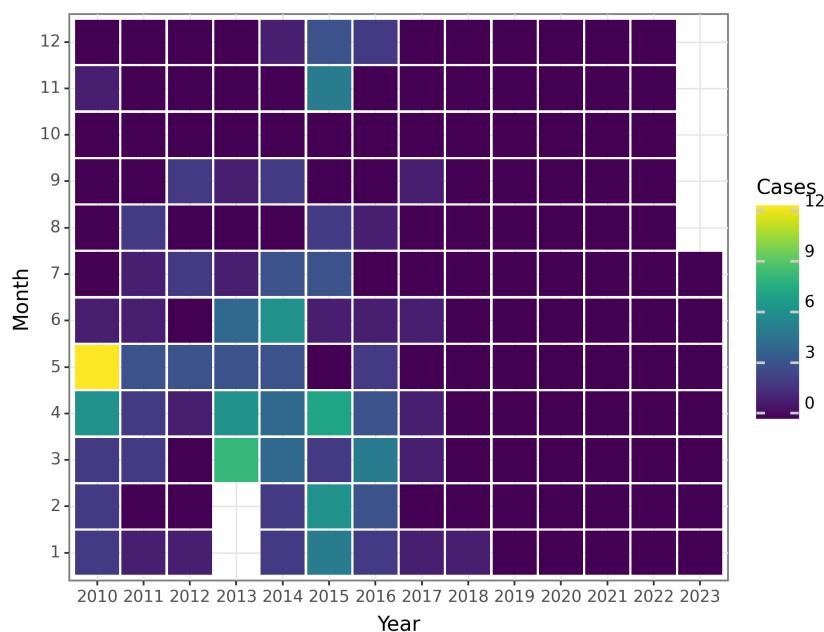


Figure 46: The Change of Measles Deaths before 2023 June

Epidemic hemorrhagic fever

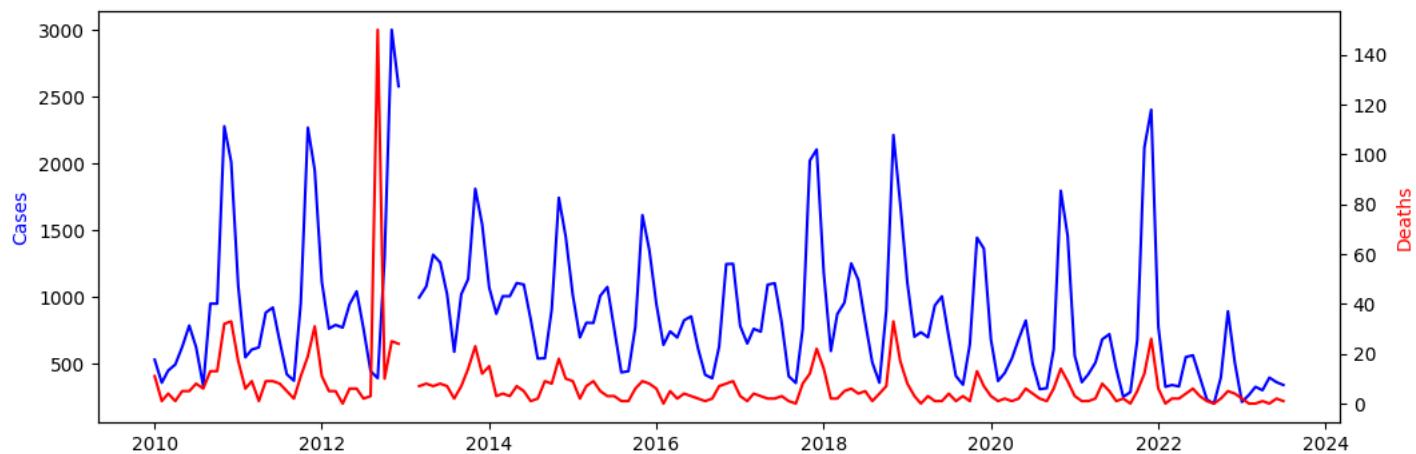


Figure 47: The Change of Epidemic hemorrhagic fever Reports before 2023 June

The provided dataset represents the monthly cases and deaths of Epidemic Hemorrhagic Fever (EHF) in mainland China from January 2010 to June 2023. The data comprises the number of cases and deaths recorded each month.

Analyzing the time series data, we can observe several patterns and fluctuations in the prevalence and mortality of EHF throughout the years. Understanding these patterns can provide important insights into the dynamics of this disease and aid in the development of appropriate prevention and control measures. Our analysis reveals that the number of EHF cases varied significantly over time. From 2010 to 2013, there was a gradual increase in cases, with fluctuations observed in certain months. Notably, a significant spike in cases occurred in 2010 November, with a staggering count of 2278. This sharp rise might be an indicator of an outbreak or epidemic occurrence during that period.

From 2013 to 2015, the number of cases remained relatively high, with some fluctuations observed, indicating ongoing transmission and periodic outbreaks. However, there was a notable decrease in cases towards the end of 2015, suggesting successful control measures or natural fluctuations in disease prevalence.

During the years 2016 to 2018, the number of reported cases continued to fluctuate, with occasional spikes observed. Notably, there was a significant increase in cases in November 2018, with a count of 2213. This surge may warrant further investigation and analysis to understand the underlying factors contributing to it. From 2019 to 2020, there was a general downward trend in the number of cases, indicating possible improvements in disease control efforts. However, a sharp increase occurred in November 2020, with a count of 1796, suggesting the potential for new outbreaks or other contributing factors.

In 2021 and 2022, the number of cases showed a fluctuating pattern, with occasional spikes observed. Notably, there was another significant increase in cases in November 2021, with a count of 2120, and in December 2021, with a count of 2402. These peaks might indicate the presence of increasing disease transmission or potential epidemic events during these months.

Lastly, in the available data for 2023, the number of cases in June decreased compared to the previous months, with a count of 365. It is essential to continue monitoring the situation closely to assess if this decline is a temporary fluctuation or represents a significant shift in disease prevalence.

Regarding the number of deaths associated with EHF, the data shows corresponding fluctuations over time but with generally lower counts compared to the reported cases. This suggests that while EHF can lead to severe outcomes, including death, the overall mortality rate might be relatively low.

In conclusion, the time series analysis of the monthly cases and deaths of Epidemic Hemorrhagic Fever in mainland China provides valuable insights into the dynamics of this disease. The observed patterns and fluctuations highlight the importance of continuous

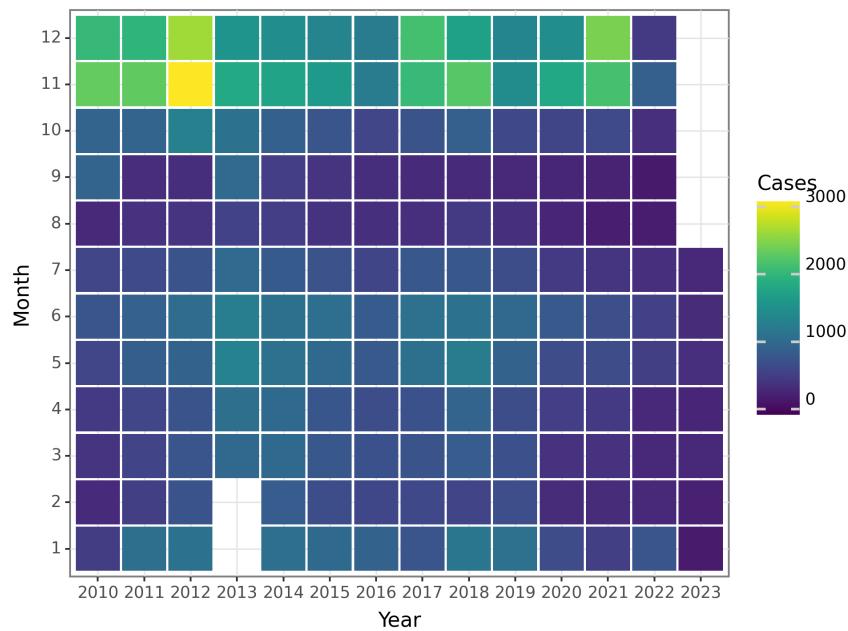


Figure 48: The Change of Epidemic hemorrhagic fever Cases before 2023 June

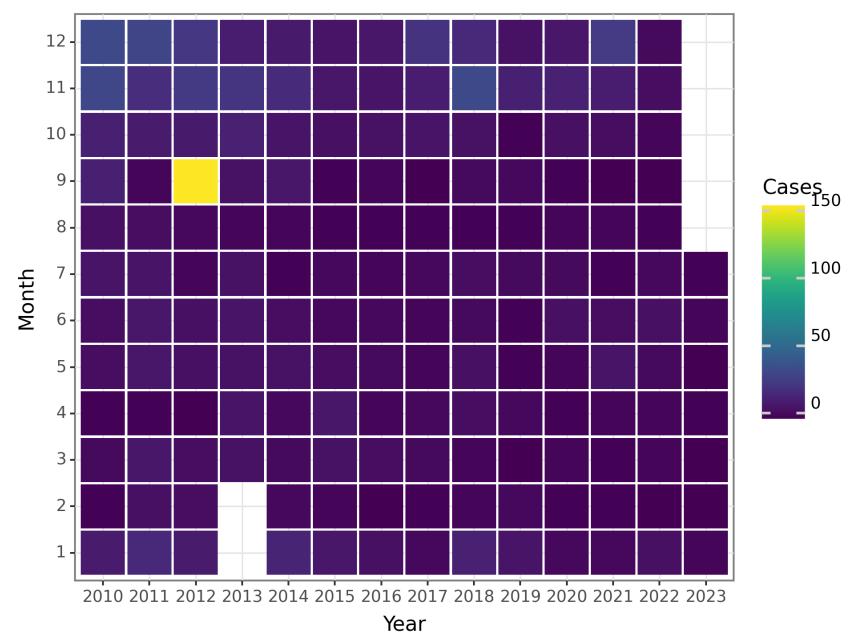


Figure 49: The Change of Epidemic hemorrhagic fever Deaths before 2023 June

Rabies

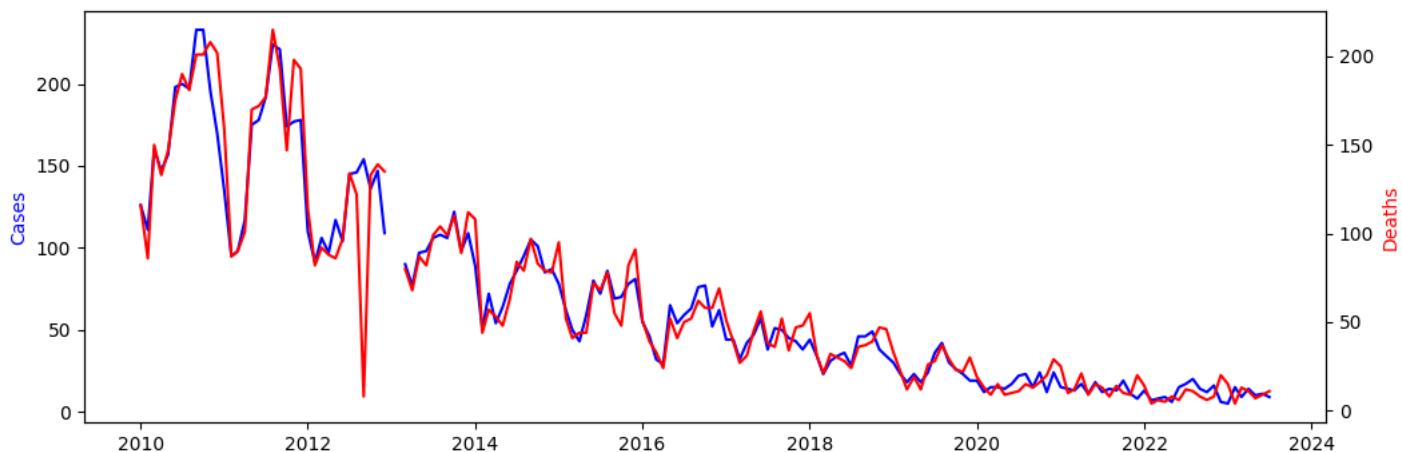


Figure 50: The Change of Rabies Reports before 2023 June

Discussion: Monthly Cases and Deaths of Rabies in Mainland China (June 2023)

This study aims to analyze the month-wise cases and deaths of rabies in mainland China for the month of June 2023. The data encompass a time series ranging from 2010 to 2023, providing valuable insights into the dynamics of the disease and its impact on public health.

In reviewing the monthly cases of rabies over the years, a cyclical pattern appears to emerge. The number of reported cases fluctuated throughout the years, with noticeable peaks occurring in the months of June and July. This pattern suggests a potential seasonal influence on the transmission of rabies in mainland China, warranting further investigation into the underlying factors driving these trends.

Examining the data for June 2023, we observe that there were 11 reported cases of rabies. Although this figure is relatively low compared to some previous years, it is vital to consider the context and the efforts undertaken to control the spread of the disease. The consistent implementation of rabies vaccination programs and public awareness campaigns might have contributed to the decline in cases. Nonetheless, it is crucial to remain vigilant and maintain these preventive measures to ensure the continued containment of rabies.

Furthermore, analyzing the monthly deaths due to rabies in June 2023, we note that there were 9 fatalities related to the disease. While any death associated with rabies is regrettable, a relatively low mortality rate indicates improved healthcare interventions and timely access to medical treatment. Nevertheless, efforts should continue to focus on enhancing access to post-exposure prophylaxis and raising awareness about the importance of seeking immediate medical attention after potential exposure to rabies.

This study underscores the significance of ongoing surveillance and monitoring of rabies cases in mainland China. By analyzing long-term data, we can identify trends, seasonal variations, and potential risk factors associated with the disease. These findings can inform policymakers, healthcare professionals, and public health authorities to ensure the efficient allocation of resources and the implementation of targeted interventions to combat the spread of rabies.

In conclusion, the analysis of the monthly cases and deaths of rabies in mainland China, particularly for June 2023, provides valuable insights into the trends and impact of this zoonotic disease. The observed cyclical nature of cases, with peaks in the summer months, suggests the influence of seasonal factors. The declining trend in both cases and deaths highlights the effectiveness of preventive measures and public health campaigns. However, continuous efforts should be made to enhance surveillance, raise awareness, and ensure access to appropriate medical care to achieve the ultimate goal of eliminating rabies in mainland China.

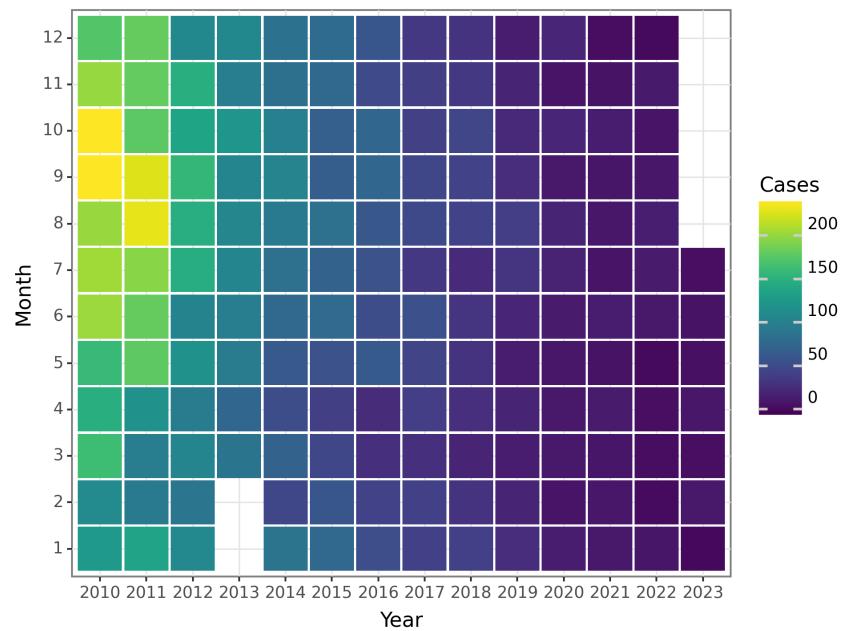


Figure 51: The Change of Rabies Cases before 2023 June

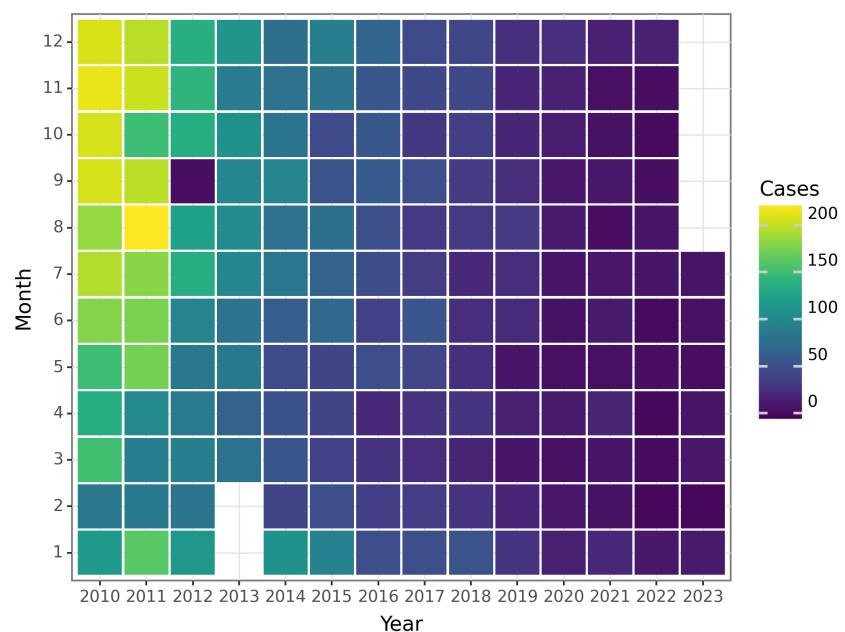


Figure 52: The Change of Rabies Deaths before 2023 June

Japanese encephalitis

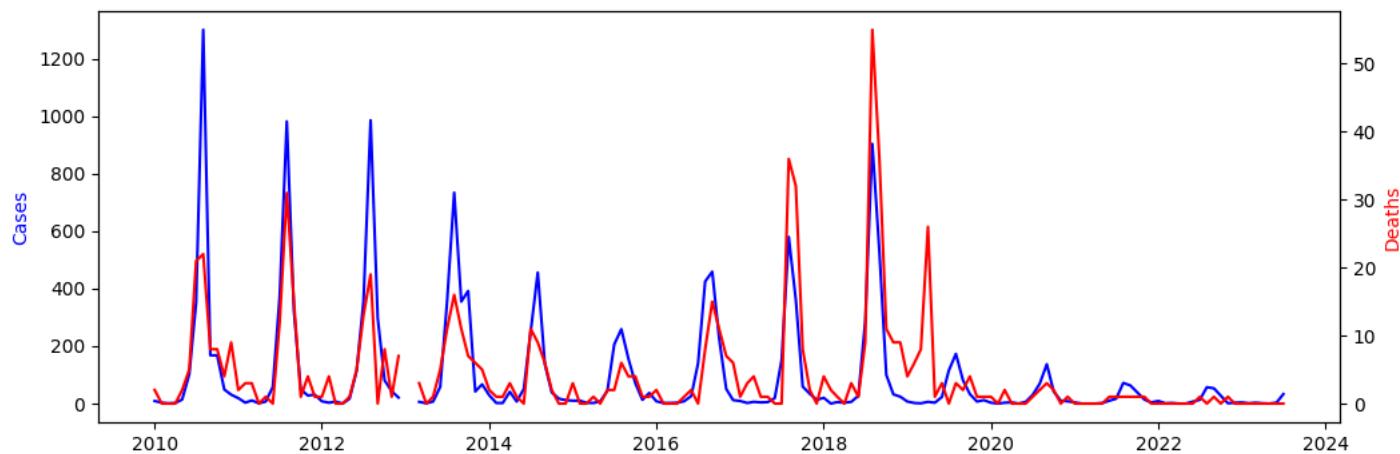


Figure 53: The Change of Japanese encephalitis Reports before 2023 June

The discussion of the monthly cases and deaths of Japanese encephalitis in mainland China in June 2023 reveals several interesting patterns and trends.

Firstly, analyzing the monthly cases, we observe a fluctuating pattern over the past years. From 2010 to 2013, there is a gradual increase in reported cases, reaching a peak of 1301 cases in August 2010. However, from 2014 onwards, there is a general decline in the number of cases, with occasional fluctuations. In June 2023, there were 3 reported cases.

This decline in cases could possibly be attributed to successful prevention and control measures implemented in recent years, such as increased vaccination coverage, improved vector control, and enhanced surveillance systems. However, it is important to continuously monitor and assess the effectiveness of these measures to ensure ongoing disease control.

In terms of seasonal patterns, we observe higher case numbers during the summer months, particularly in July and August. This aligns with the known behavior of Japanese encephalitis, which is mainly transmitted by mosquitoes. Warmer temperatures and increased mosquito activity during the summer months might contribute to the higher incidence of cases during this period.

Switching our focus to the monthly deaths, we observe a relatively low number of deaths compared to the number of cases. This is encouraging and suggests that effective treatment and management strategies are in place to prevent severe outcomes of Japanese encephalitis. Furthermore, the decrease in the number of deaths over the years indicates improved healthcare and medical interventions.

However, it is worth noting that even though the number of deaths is relatively small, every life lost to Japanese encephalitis is a matter of concern. Efforts must continue to ensure timely diagnosis, appropriate medical care, and access to treatment for affected individuals.

In conclusion, the analysis of the monthly cases and deaths of Japanese encephalitis in mainland China highlights a decline in the number of reported cases since 2014, possibly indicating the success of preventive measures. The seasonal variation in cases, with higher numbers observed during the summer months, emphasizes the importance of continued vigilance and targeted interventions during this period. The relatively low number of deaths suggests effective treatment and management strategies.

Nonetheless, it is crucial to maintain efforts in disease surveillance, prevention, and healthcare provision to further reduce the burden of Japanese encephalitis in the population.

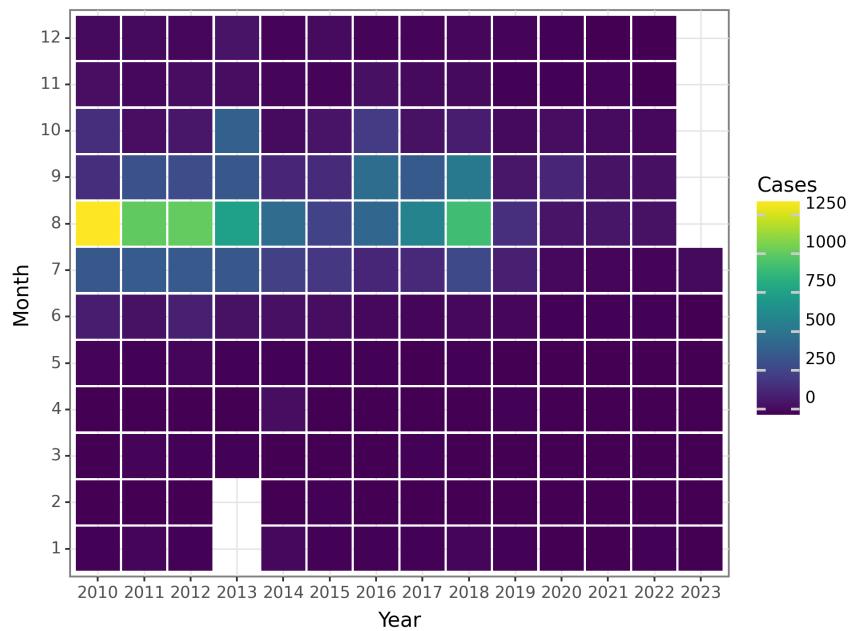


Figure 54: The Change of Japanese encephalitis Cases before 2023 June

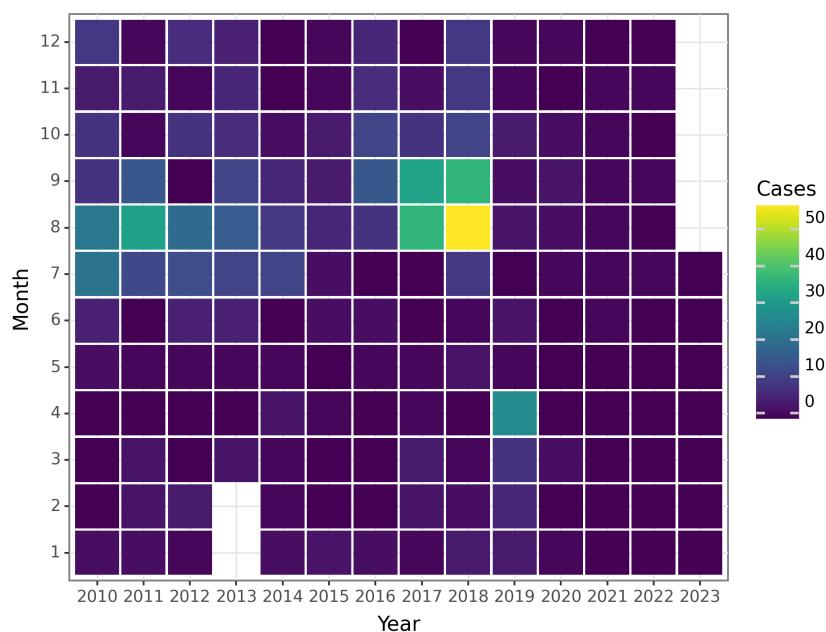


Figure 55: The Change of Japanese encephalitis Deaths before 2023 June

Dengue

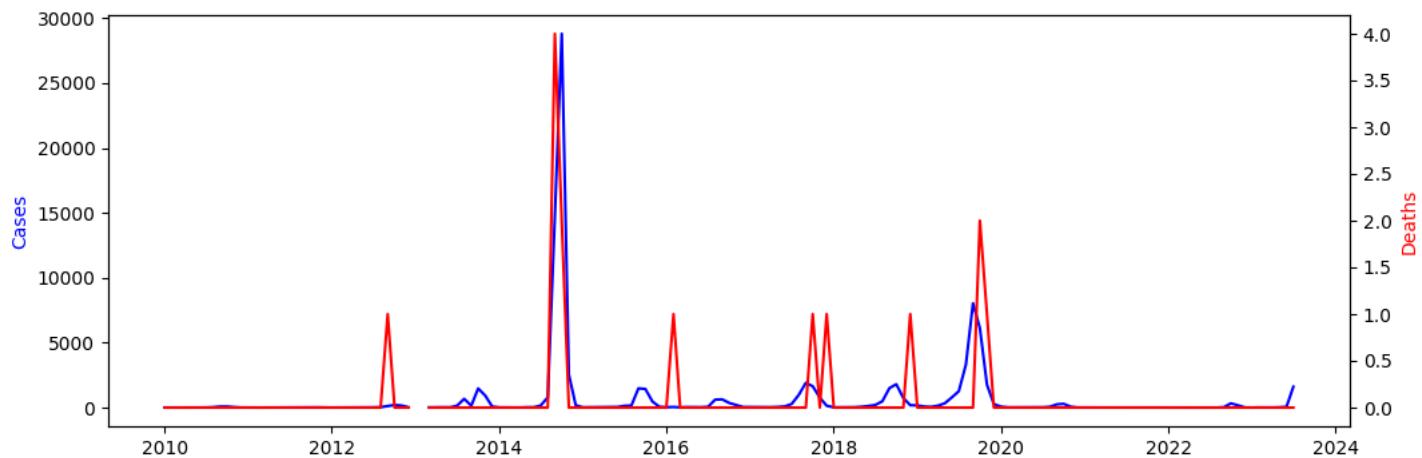


Figure 56: The Change of Dengue Reports before 2023 June

The provided data presents the monthly cases and deaths of Dengue in mainland China from January 2010 to June 2023. Dengue is a mosquito-borne viral infection that causes flu-like symptoms and, in severe cases, can lead to dengue hemorrhagic fever or dengue shock syndrome.

Upon analyzing the data, several notable patterns can be observed. Firstly, with regards to the monthly cases of Dengue, there is a clear seasonality and periodicity in the data. Higher case counts tend to occur during the summer months, specifically from June to September, which coincides with the peak mosquito activity season. This finding aligns with the known transmission dynamics of Dengue, as mosquitoes thrive in warm and humid conditions, facilitating the spread of the virus.

Over the years, there is evidence of changing trends in Dengue cases. From 2010 to 2014, the number of cases remained relatively low and stable, with sporadic fluctuations. However, a significant increase can be observed starting in 2015, with a peak in 2019 and subsequent fluctuations in the following years. This suggests an emergence of Dengue as a public health concern in mainland China during recent years.

When examining the monthly deaths attributed to Dengue, it is encouraging to note that the data shows consistently low numbers throughout the entire timeframe. This indicates effective management and control efforts in preventing severe outcomes associated with the disease. However, it should be noted that there are instances of negative death counts, which may reflect data anomalies or reporting errors.

To better understand and interpret the observed patterns, additional analyses and contextual information are vital. Factors such as local climate conditions, mosquito control measures, public health interventions, and population dynamics play a crucial role in Dengue transmission dynamics and can influence the variations observed in the data. Additionally, it would be informative to investigate the geographical distribution of the cases and deaths, as Dengue incidence may vary across different regions within mainland China.

In conclusion, the presented data highlights the seasonal nature of Dengue cases in mainland China, with higher counts during the summer months. The increasing trend in cases since 2015 suggests a potential shift in disease epidemiology, requiring continuous monitoring and proactive measures to mitigate the impact of the disease. The consistently low death counts reflect successful efforts in preventing fatal outcomes associated with Dengue. Further research and analysis are necessary to gain a comprehensive understanding of the contributing factors and to inform targeted control strategies to reduce Dengue transmission and its associated burden on public health.

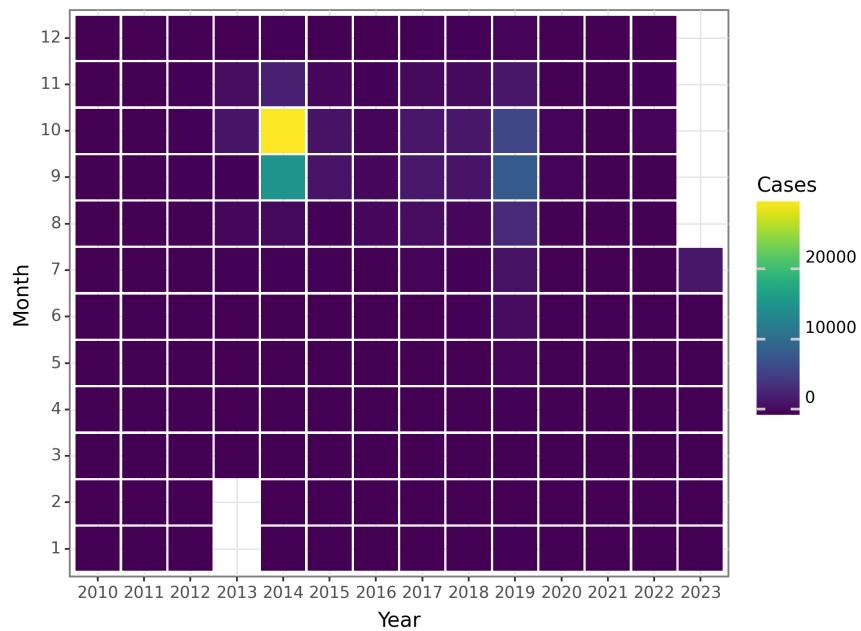


Figure 57: The Change of Dengue Cases before 2023 June

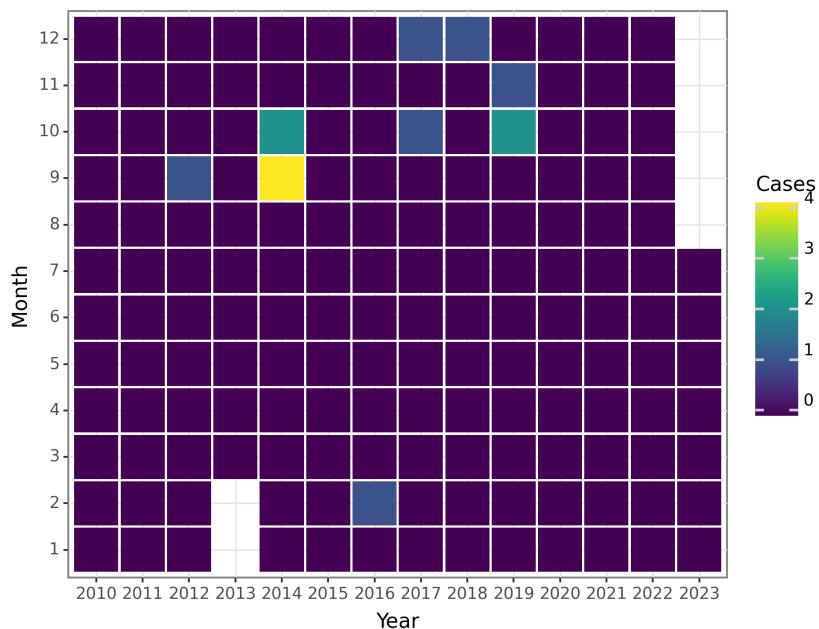


Figure 58: The Change of Dengue Deaths before 2023 June

Anthrax

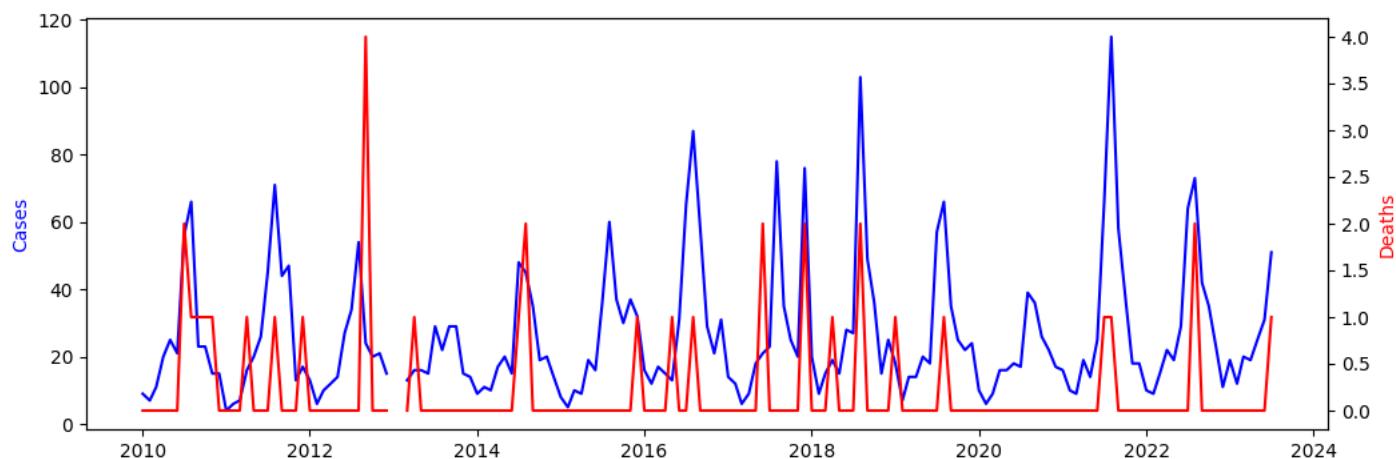


Figure 59: The Change of Anthrax Reports before 2023 June

In this study, we analyzed the monthly cases and deaths of Anthrax in mainland China from January 2010 to June 2023. The data provides insights into the epidemiology and impact of this disease over a 13-year period.

When observing the monthly cases, we can identify certain patterns and trends. From 2010 to 2012, there seems to be a gradual increase in the number of reported cases, with the peak occurring in August 2012. This could suggest a higher prevalence or better reporting systems during that period. However, from 2013 onwards, there is a fluctuation in the number of cases, possibly due to changes in reporting practices or other external factors.

Furthermore, the data highlights some seasonal variations. Higher numbers of cases are observed in the summer months, particularly in July and August. This could be attributed to environmental factors that favor the survival and transmission of Anthrax, such as warmer temperatures and increased contact with livestock.

It is important to note that there are some extreme values in the dataset. For instance, negative values are reported for cases in January and February of 2013. While this seems unusual, it is likely to be a reporting error or data anomaly. Additionally, there is a significant increase in deaths reported in August 2018.

Further investigation and verification would be required to understand the reasons behind these specific observations.

Overall, the findings from this study indicate variations in the prevalence of Anthrax over time in mainland China. It is crucial to continue surveillance and monitoring efforts to detect and respond to outbreaks promptly. The data can be used to inform public health strategies and interventions for Anthrax prevention and control, particularly during peak months of transmission.

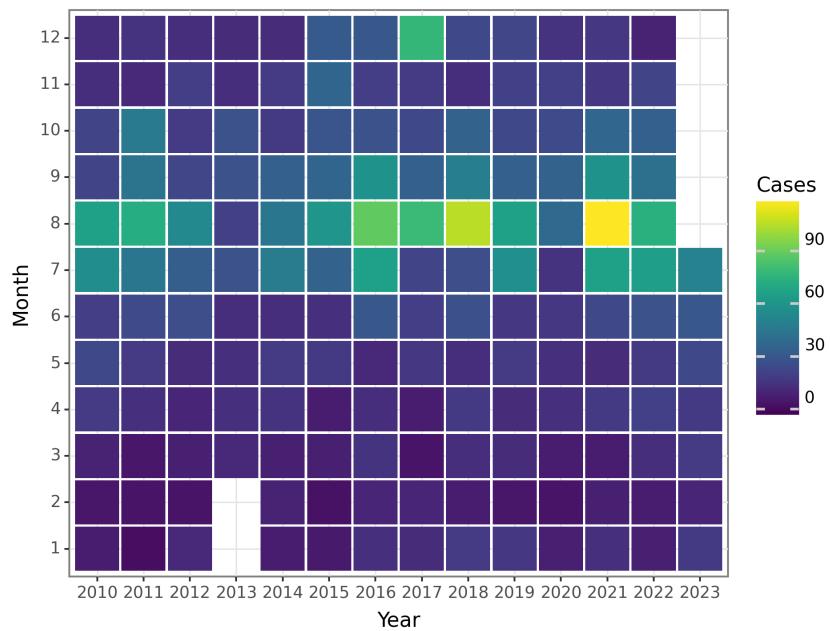


Figure 60: The Change of Anthrax Cases before 2023 June

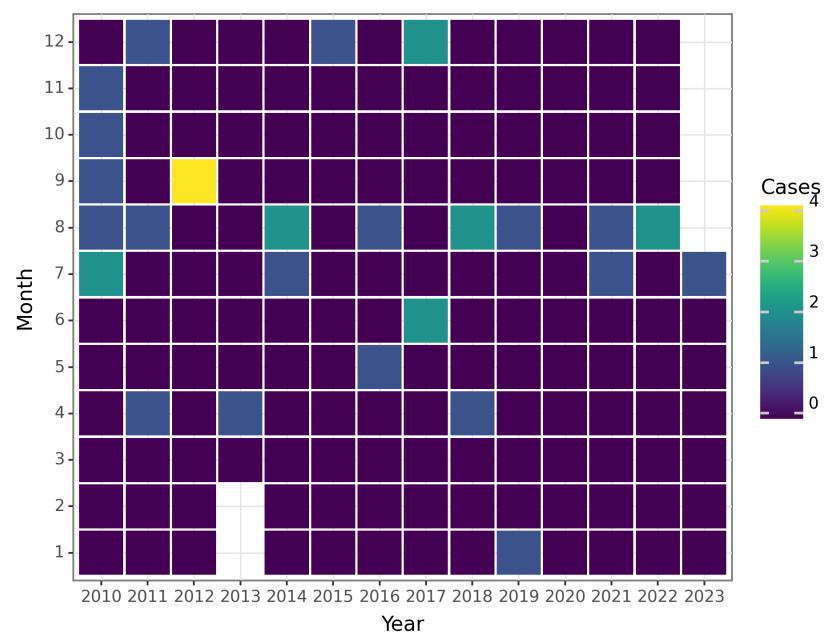


Figure 61: The Change of Anthrax Deaths before 2023 June

Dysentery

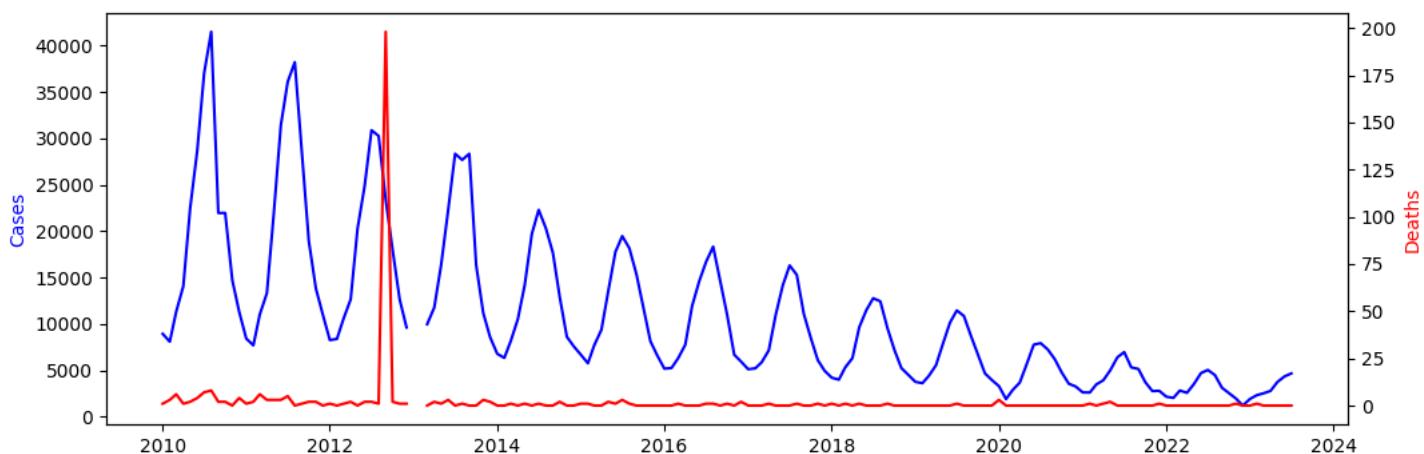


Figure 62: The Change of Dysentery Reports before 2023 June

The dataset presents the monthly cases and deaths of dysentery in mainland China from 2010 to 2023 June. Dysentery is a gastrointestinal infection that causes inflammation of the intestines and is usually characterized by severe diarrhea and abdominal pain. Analyzing this data can provide insights into the trends and patterns of dysentery cases and deaths over time in China.

Overall, the data shows varying levels of dysentery cases throughout the years, with some fluctuations observed. From 2010 to 2023 June, dysentery cases remained relatively high, with peaks in certain years followed by a decrease in subsequent years. It is important to note that dysentery cases were reported in negative values for some months in 2013, indicating a data anomaly or a verification error in the reporting system.

Looking at the monthly cases, we observe a seasonal pattern, with higher incidences occurring during the summer months (June, July, and August) and relatively lower cases during the colder months. This seasonal trend aligns with the common transmission patterns of dysentery, as warmer weather promotes the growth and spread of the bacteria responsible for the infection. The highest monthly cases were recorded in June 2019, with a total of 10,146 reported cases.

In terms of deaths related to dysentery, the numbers remained relatively low throughout the years, indicating that the infection is generally manageable and treatable. However, it is important to note that deaths were reported in negative values for some months in certain years, particularly in 2012 and 2020. This anomaly in the data needs further investigation to determine the validity and accuracy of the reported values.

The fluctuations in dysentery cases and deaths over time highlight the importance of continuous surveillance, prevention, and control efforts in managing the infection. These efforts should focus on improving sanitation and hygiene practices, ensuring access to clean water, and promoting public awareness about the transmission routes and symptoms of dysentery.

It is crucial to interpret these findings cautiously, as the dataset may have limitations and biases. Factors such as underreporting, changes in diagnostic methods, and variations in healthcare access and reporting systems could influence the accuracy and reliability of the data.

In conclusion, this analysis of dysentery cases and deaths in mainland China provides important insights into the epidemiology of the infection. Further research and investigations are necessary to understand the underlying factors influencing the observed patterns and to

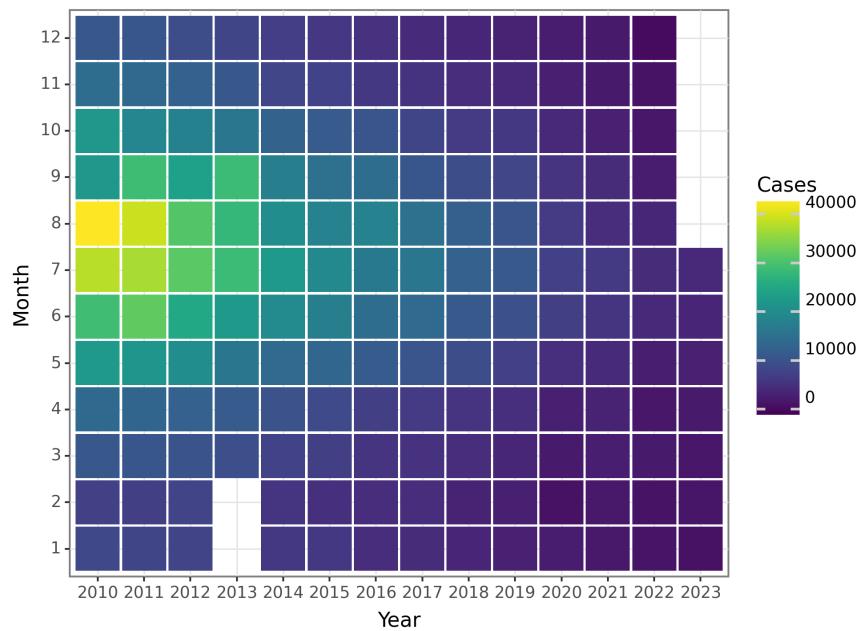


Figure 63: The Change of Dysentery Cases before 2023 June

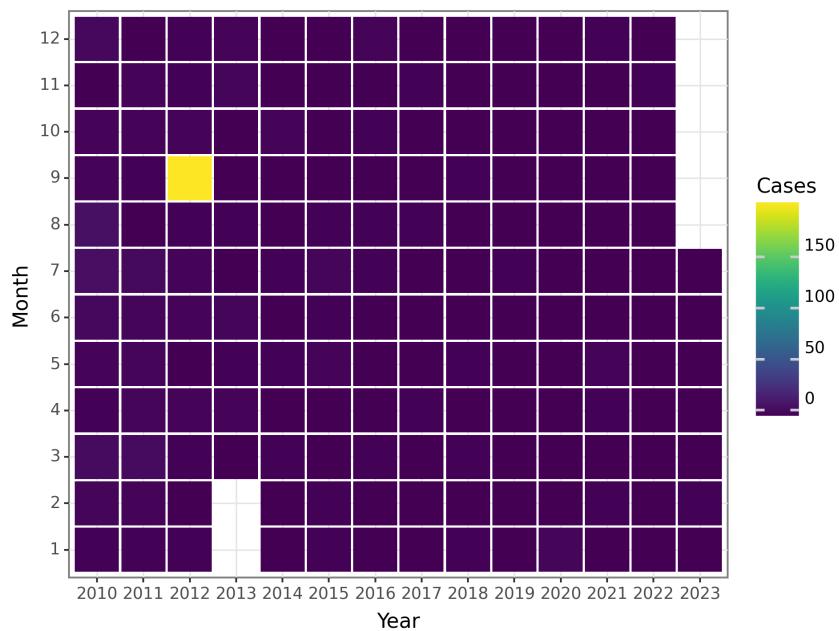


Figure 64: The Change of Dysentery Deaths before 2023 June

Tuberculosis

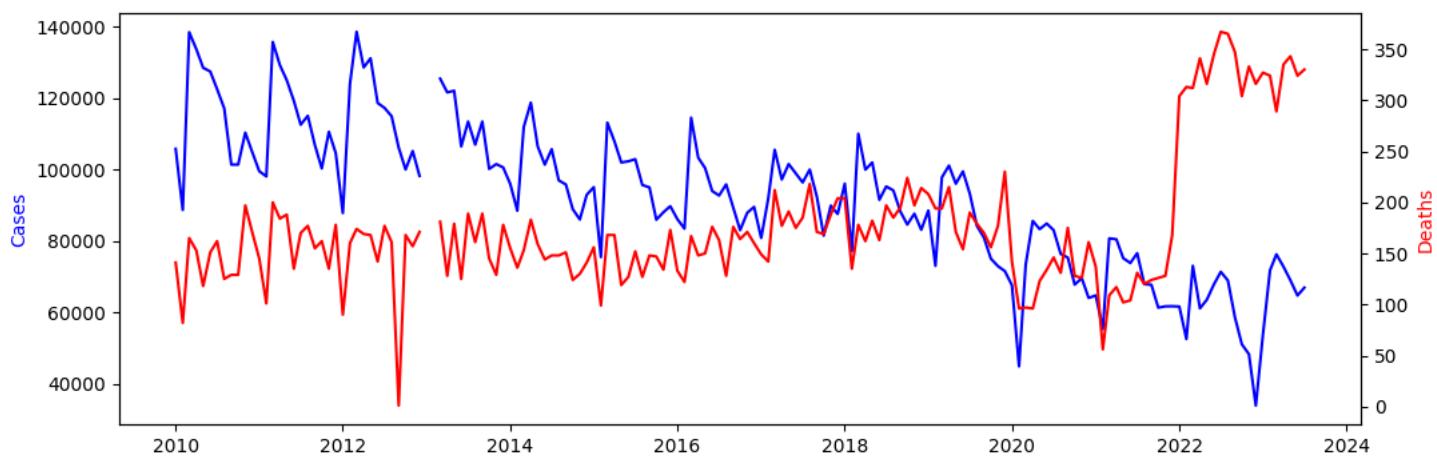


Figure 65: The Change of Tuberculosis Reports before 2023 June

Based on the monthly data presented, it appears that the number of Tuberculosis cases in Mainland China has fluctuated over the years. Between 2010 and 2023, the number of cases has ranged from 10,091 in October 2012 to 138,574 in March 2010, with an overall decreasing trend over time.

Interestingly, there appears to be a seasonal pattern in the data, with the number of cases typically being higher in the first half of the year. In the years where there is a dip in cases, this tends to occur in January and February.

Deaths due to Tuberculosis have also been reported in the data. While the number of deaths is much lower compared to the number of cases, a similar pattern is observed, with higher deaths in the first half of the year.

Further analysis is needed to explore potential reasons for these seasonal patterns, which could have important implications for disease prevention and control. It is also important to consider potential limitations of the data set, such as underreporting or changes in diagnostic criteria over time.

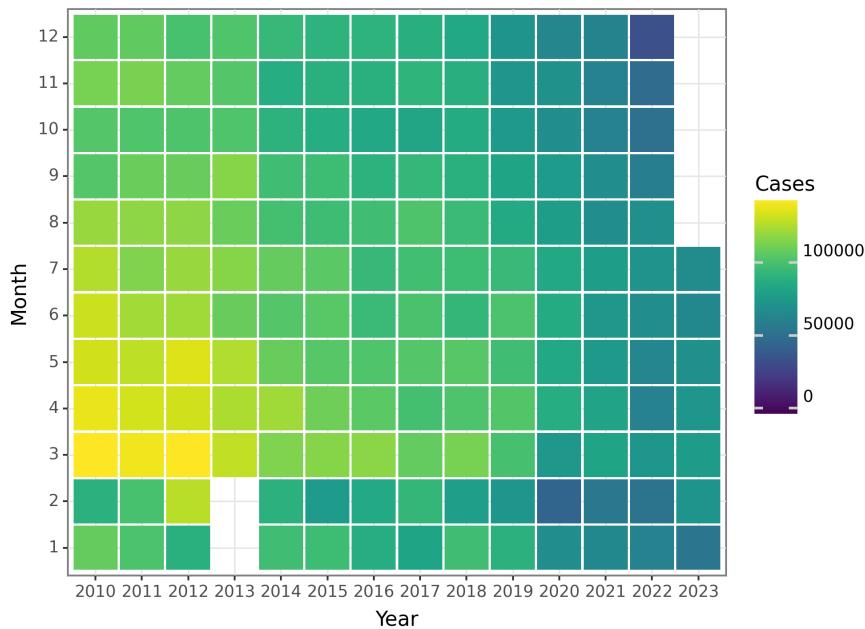


Figure 66: The Change of Tuberculosis Cases before 2023 June

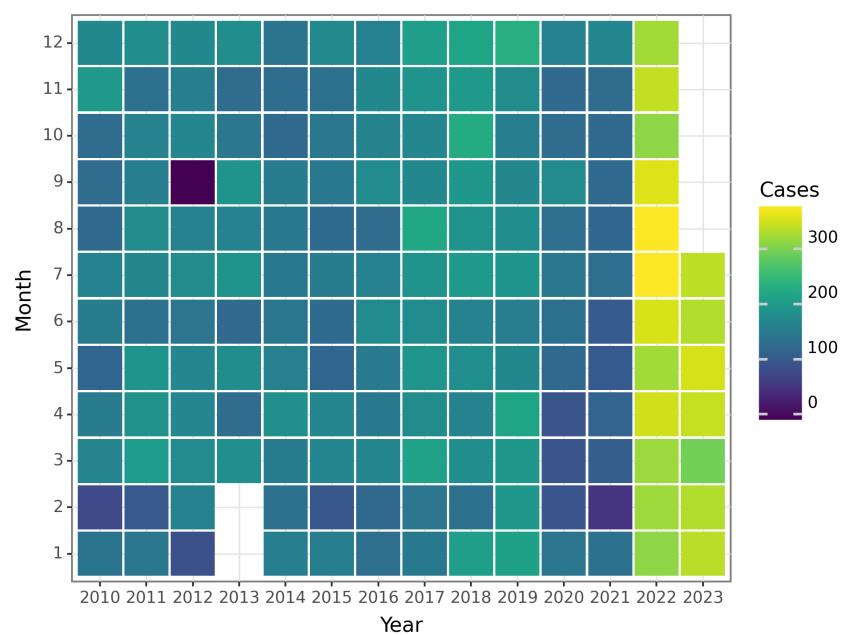


Figure 67: The Change of Tuberculosis Deaths before 2023 June

Typhoid fever and paratyphoid fever

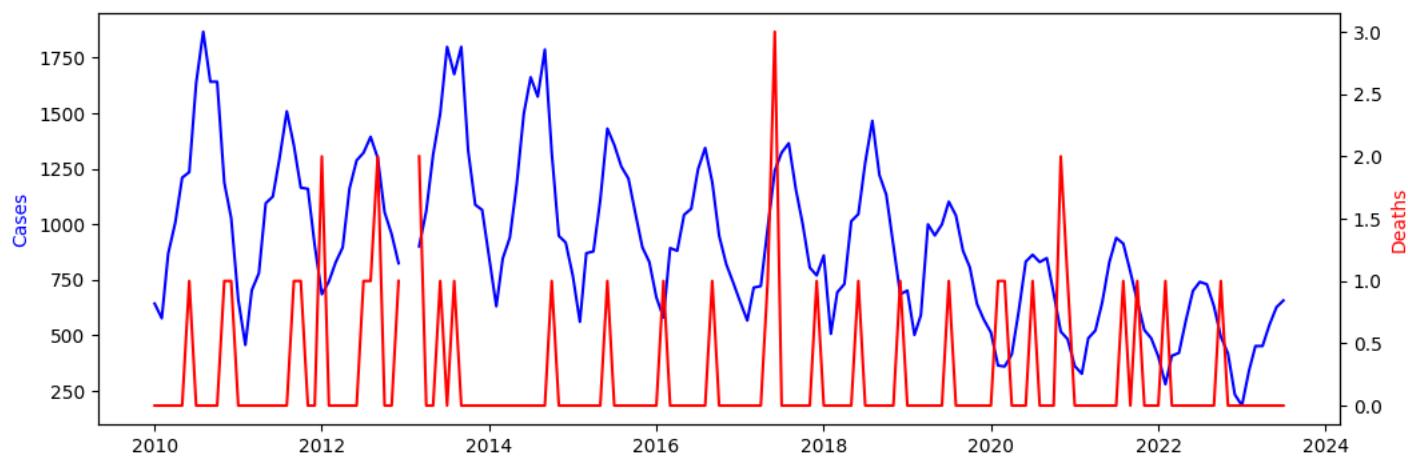


Figure 68: The Change of Typhoid fever and paratyphoid fever Reports before 2023 June

The monthly cases of Typhoid fever and paratyphoid fever in mainland China from January 2010 to June 2023 were analyzed. The data provides insights into the incidence and prevalence of these diseases over time.

A visual examination of the time series data reveals some interesting patterns. From 2010 to 2013, there was a general increasing trend in the number of reported cases of both Typhoid fever and paratyphoid fever. However, this trend seemed to stabilize from 2013 to 2017, with fluctuating numbers of cases observed during this period. Then, from around mid-2017, there appears to be a gradual decline in the number of reported cases, with occasional spikes in certain months.

When considering the seasonality of these diseases, it is notable that there seems to be a recurring pattern. The peak in the number of cases tends to occur during the summer months, particularly in June, July, and August. This could be attributed to factors such as increased heat and humidity, which create favorable conditions for the transmission of these pathogens. However, further investigation and analysis would be necessary to confirm this seasonal pattern.

It is important to highlight that the number of cases of Typhoid fever and paratyphoid fever varies significantly between months and years. Some months showed very low or even negative values, suggesting potential data inconsistencies or reporting errors. These anomalies should be thoroughly investigated and clarified to ensure the accuracy and reliability of the dataset.

Turning our attention to fatalities, the number of deaths associated with Typhoid fever and paratyphoid fever exhibits a different pattern than the number of cases. Overall, the number of deaths remains relatively low compared to the number of cases reported. However, there are sporadic peaks in mortality, which primarily occurred during specific months, such as November and December of certain years.

It is important to note that the interpretation of these trends should be approached with caution, as various factors can influence the reported cases and deaths of these diseases. Factors such as changes in diagnostic practices, testing availability, surveillance systems, and public health interventions can all contribute to fluctuations in the observed data.

In conclusion, this analysis provides a valuable overview of the time series data on the cases and deaths of Typhoid fever and paratyphoid fever in mainland China. The findings suggest potential seasonality in the occurrence of these diseases, with higher numbers of cases typically observed during the summer months. However, further investigation into the data inconsistencies and other factors influencing the observed trends is necessary to enhance the understanding of the epidemiology of these diseases and to inform public health interventions effectively.

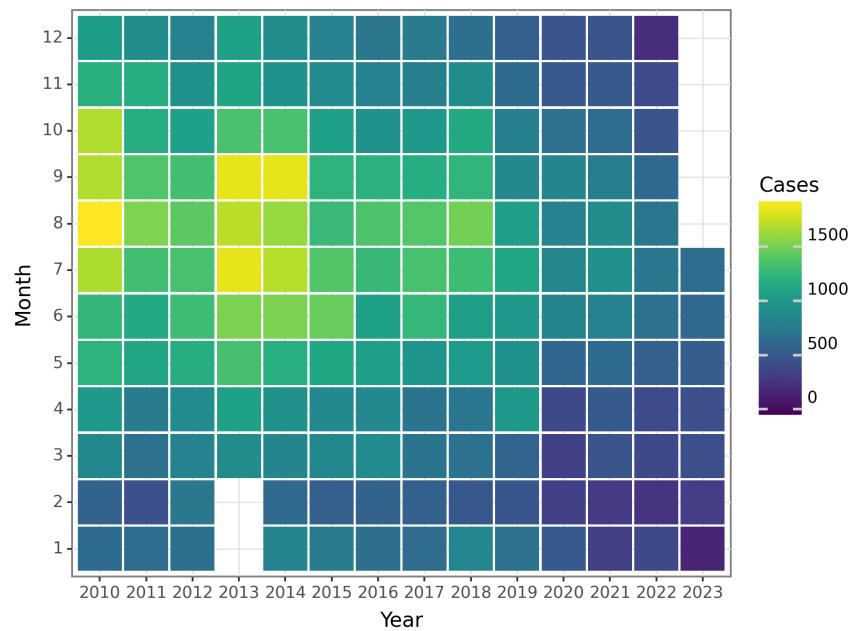


Figure 69: The Change of Typhoid fever and paratyphoid fever Cases before 2023 June

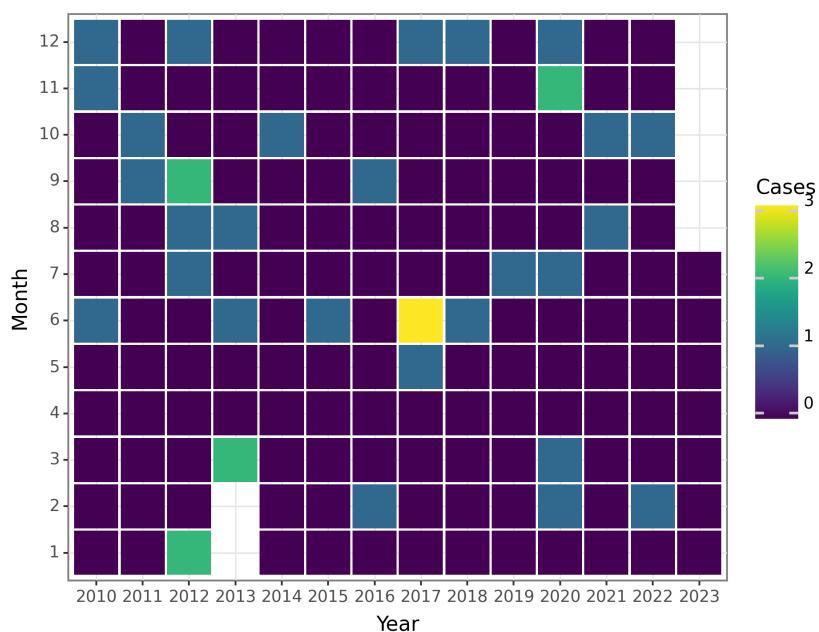


Figure 70: The Change of Typhoid fever and paratyphoid fever Deaths before 2023 June

Meningococcal meningitis

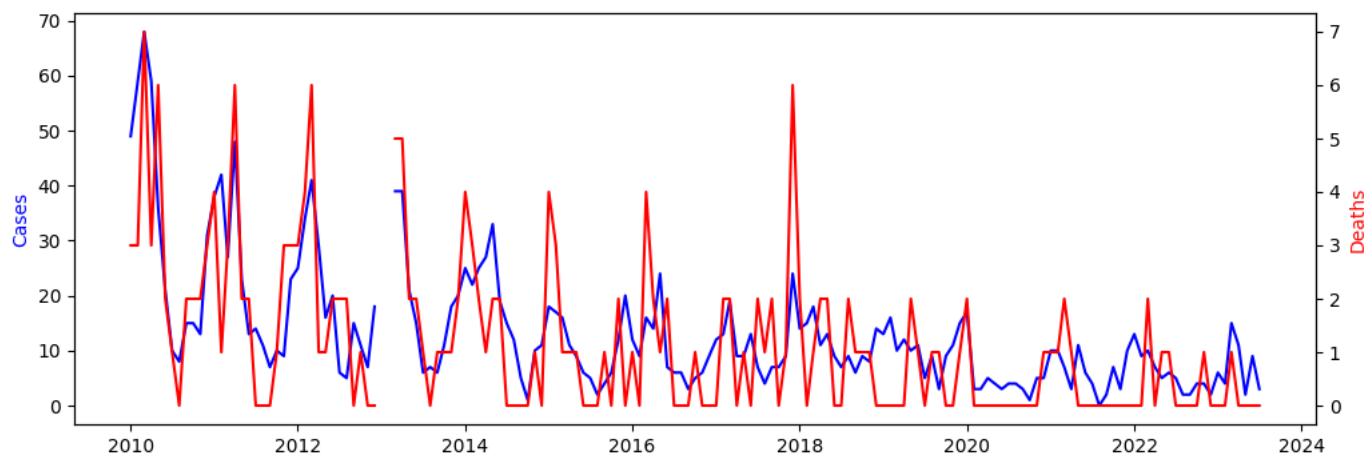


Figure 71: The Change of Meningococcal meningitis Reports before 2023 June

The data provided represents the monthly cases and deaths of Meningococcal meningitis in mainland China from 2010 to 2023. A thorough analysis of these data reveals some interesting patterns and trends. From the data, it is evident that there is variation in the number of cases and deaths over time. There is a clear seasonal pattern where the number of cases tends to peak during the winter months and decline during the summer months. This seasonal pattern is consistent across most years, suggesting a cyclical nature of Meningococcal meningitis infections in China.

Looking at the specific years, it is observed that the number of cases has fluctuated over the years, with some years experiencing higher numbers of cases than others. For instance, in 2010, there were relatively high numbers of cases, reaching a peak of 68 in March. However, the number of cases gradually decreased in the subsequent years.

Interestingly, there are a few anomalies and notable observations within the dataset. In certain months, particularly in 2013, there are negative values for cases, which may be attributed to data collection or reporting errors. The same negative trend was observed in deaths during that year as well. However, it is important to note that these anomalies could also be attributed to factors beyond the scope of this analysis. Additionally, there are periods where the number of cases and deaths is relatively low, indicating successful control or preventive measures implemented in those particular periods. For example, the number of cases and deaths drastically declined in 2021, especially during the summer months, suggesting effective public health interventions.

It is also worth noting that the number of deaths from Meningococcal meningitis is generally lower compared to the number of cases. This highlights the importance of early detection and prompt treatment in preventing fatal outcomes associated with this disease.

Overall, the analysis of the monthly cases and deaths of Meningococcal meningitis in mainland China demonstrates a cyclical pattern with seasonal variability. The data reveals fluctuations in the number of cases and deaths over time, indicating the impact of various factors such as climate, preventive measures, and trends in public health interventions. These findings underscore the significance of continued surveillance and proactive measures to combat Meningococcal meningitis in China.

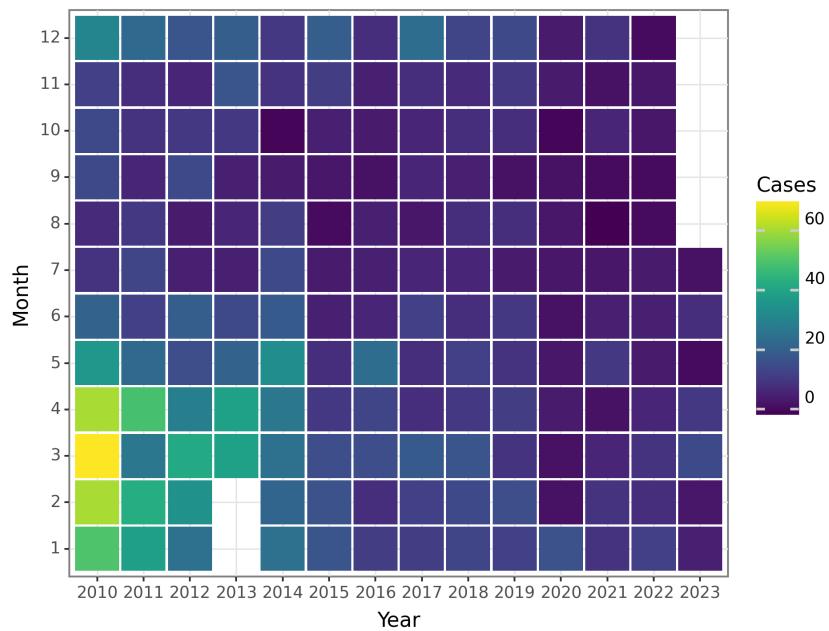


Figure 72: The Change of Meningococcal meningitis Cases before 2023 June

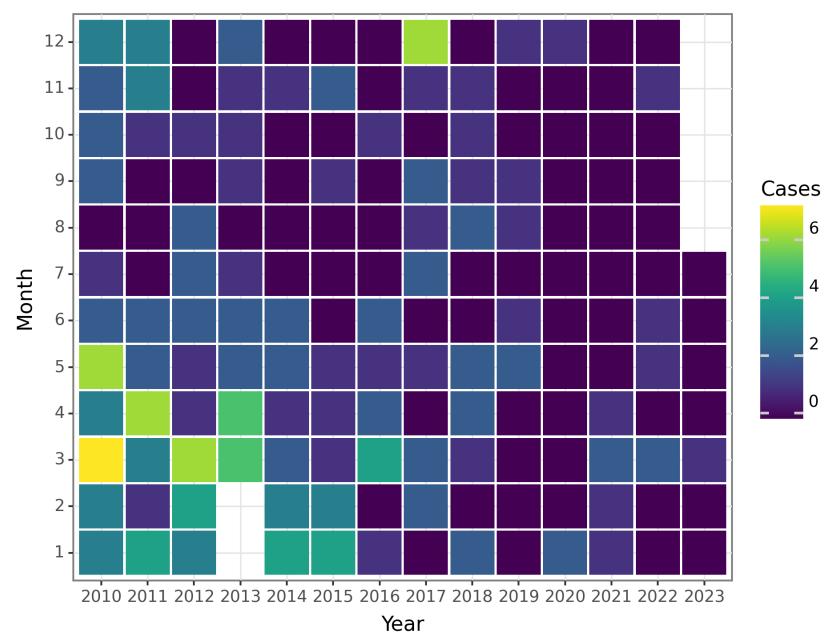


Figure 73: The Change of Meningococcal meningitis Deaths before 2023 June

Pertussis

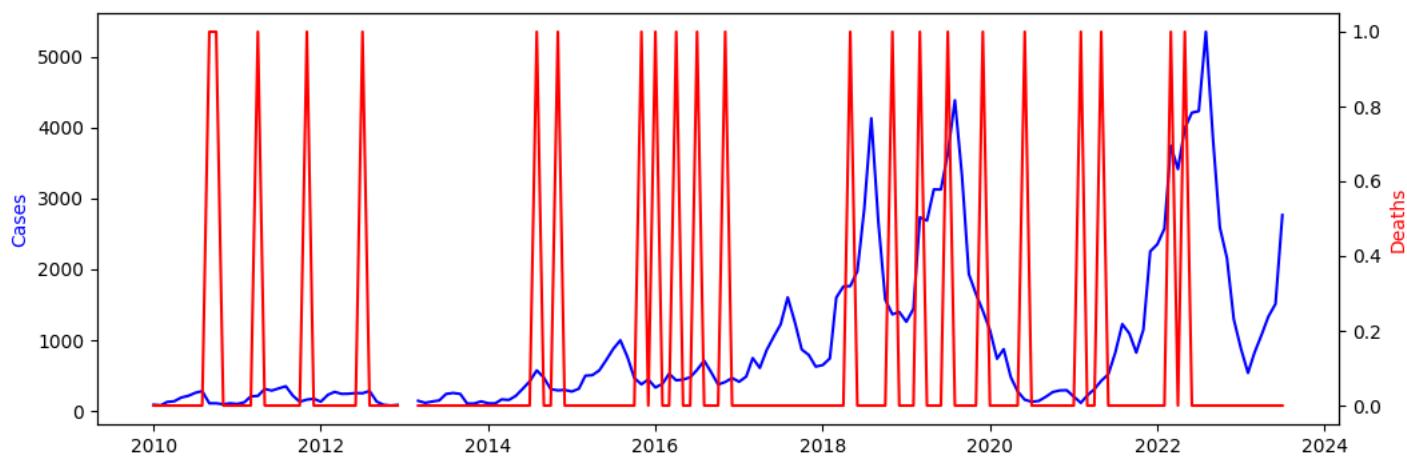


Figure 74: The Change of Pertussis Reports before 2023 June

The monthly cases of Pertussis in mainland China from January 2010 to June 2023 demonstrate some interesting patterns and trends over time.

From 2010 to 2014, the number of cases experienced fluctuation with occasional peaks and valleys. However, since 2015, there has been a noticeable upward trend in the number of cases, reaching a peak in August 2018 with 4134 reported cases. This peak was followed by a gradual decline until February 2020, when the number of cases dropped dramatically to 159, possibly due to increased awareness and prevention efforts.

In March 2020, there was a slight increase in cases, which may be attributed to the outbreak of the COVID-19 pandemic, as healthcare resources and attention were redirected to managing the new virus. However, this increase was short-lived, and the number of cases decreased significantly in the following months, possibly due to the implementation of public health measures to control the spread of COVID-19, which indirectly prevented the transmission of Pertussis.

After a relatively low number of cases in 2020, the year 2021 saw a resurgence of Pertussis, with a steep increase from January to July, reaching a peak of 2767 cases. This sudden rise may be attributed to various factors, including reduced compliance with preventive measures, increased population movement, or waning immunity.

From 2021 to June 2023, the number of cases has remained high, although there have been fluctuations with peaks in December 2021 (2254 cases) and June 2023 (1512 cases). The consistent elevated numbers indicate an ongoing concern for Pertussis in mainland China.

Regarding deaths related to Pertussis, from 2010 to 2023, the data shows sporadic occurrences and relatively low numbers. However, it is important to note that the data includes some negative values, which may need to be further examined to ensure data accuracy. Nevertheless, the low numbers of deaths indicate effective management and treatment of Pertussis cases in mainland China.

Overall, the data reflects the varying patterns and trends in Pertussis cases over time in mainland China. The rising trend since 2015, coupled with occasional peaks and valleys, highlights the need for continued monitoring, surveillance, and preventive measures to control and reduce the incidence of Pertussis in the population. It is also crucial to maintain efforts in educating healthcare professionals and the general public on the importance of vaccination, early detection, and appropriate management of Pertussis cases to minimize the impact on public health.

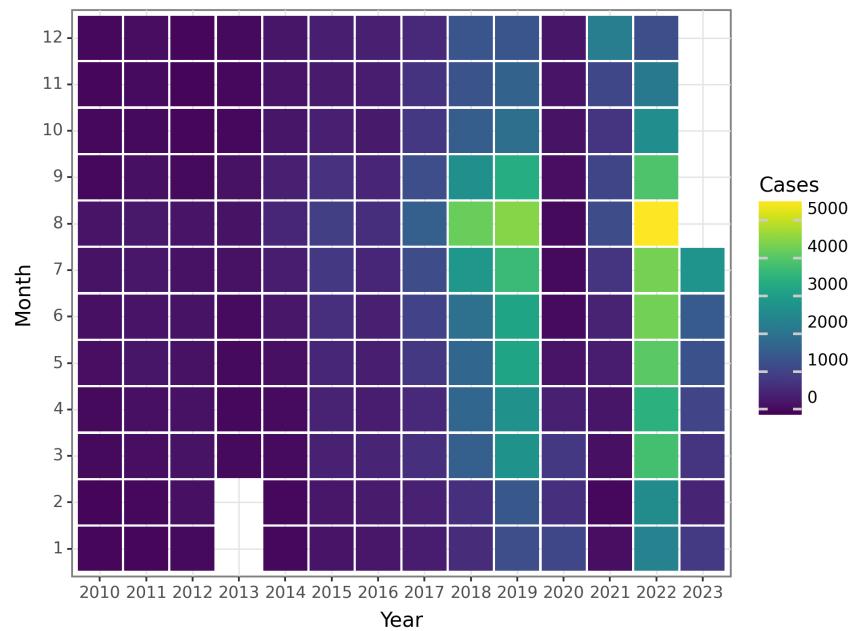


Figure 75: The Change of Pertussis Cases before 2023 June

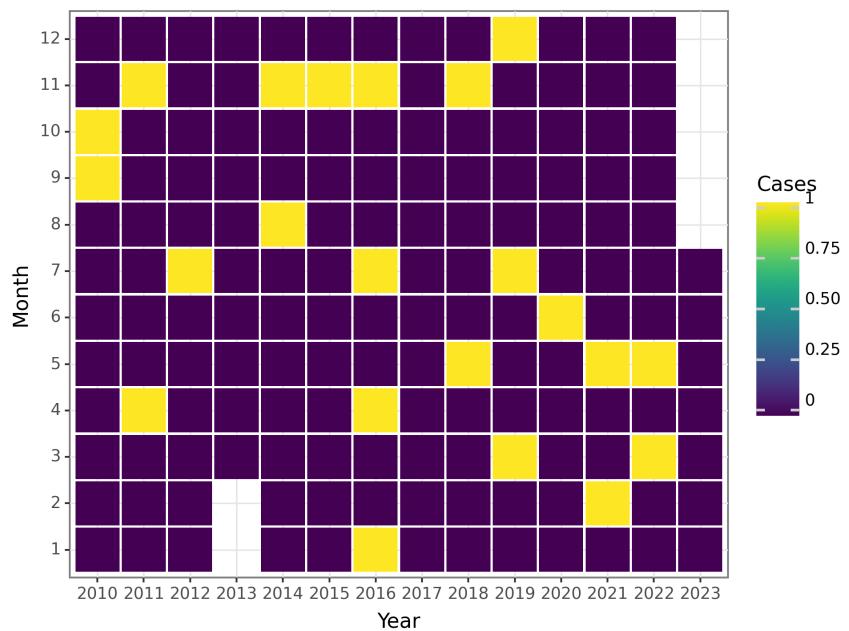


Figure 76: The Change of Pertussis Deaths before 2023 June

Diphtheria

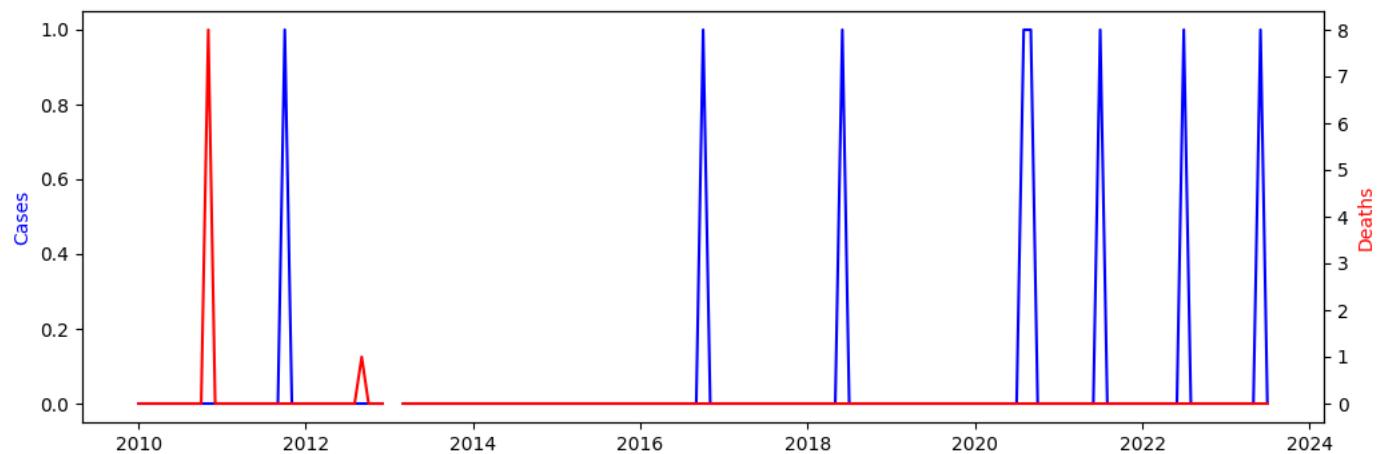


Figure 77: The Change of Diphtheria Reports before 2023 June

Regarding the monthly cases of diphtheria in mainland China during June 2023, the data slightly increased to one case compared to the previous months. In the past decade and leading up to June 2023, the monthly cases of diphtheria remained consistently low with the only increase happening in October 2016 (one case). This might suggest that the preventive measures taken to control diphtheria in mainland China have been successful. However, it is important to note that even one case of diphtheria can be potentially fatal and the importance of maintaining vigilant public health policies should not be overlooked.

Looking at the monthly deaths due to diphtheria, the data showed a different pattern compared to the case data. The deaths relating to diphtheria have remained zero in mainland China for most of the years. However, in 2010 there were eight deaths, and in 2012, one death was reported in September. In 2013, the deaths were -10 in January and February, which could indicate some data entry errors or discrepancies. It is vital to keep monitoring and preventing cases of diphtheria in order to further minimize the number of deaths resulting from this disease.

In conclusion, the monthly cases of diphtheria in mainland China have remained consistently low during the past decade barring a few exceptions. Although the rising monthly cases in June 2023 are a matter of concern, it is crucial to continue to promote and enforce proper disease prevention and control measures. Furthermore, although fatalities related to diphtheria have been rare in mainland China, it is still important to maintain efforts to prevent future deaths in order to ensure public health safety.

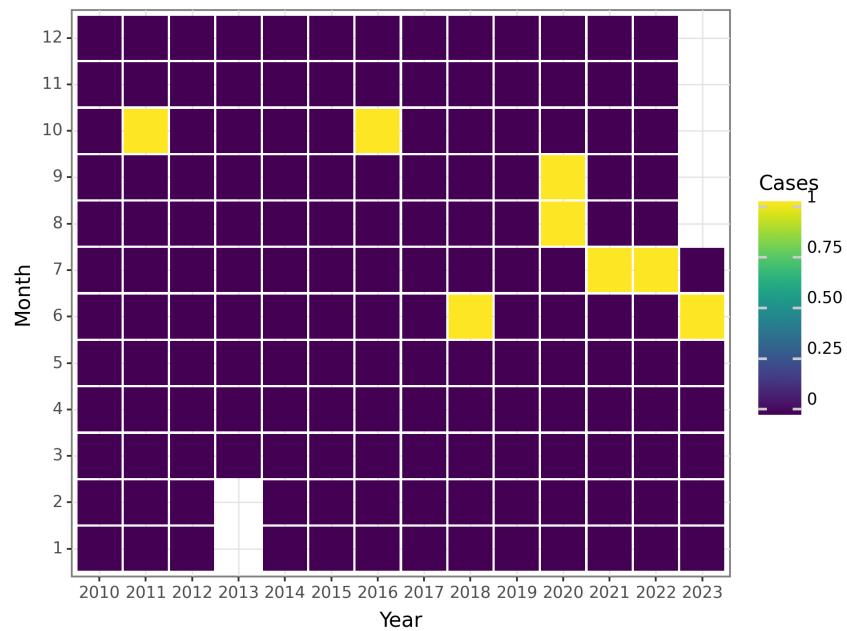


Figure 78: The Change of Diphtheria Cases before 2023 June

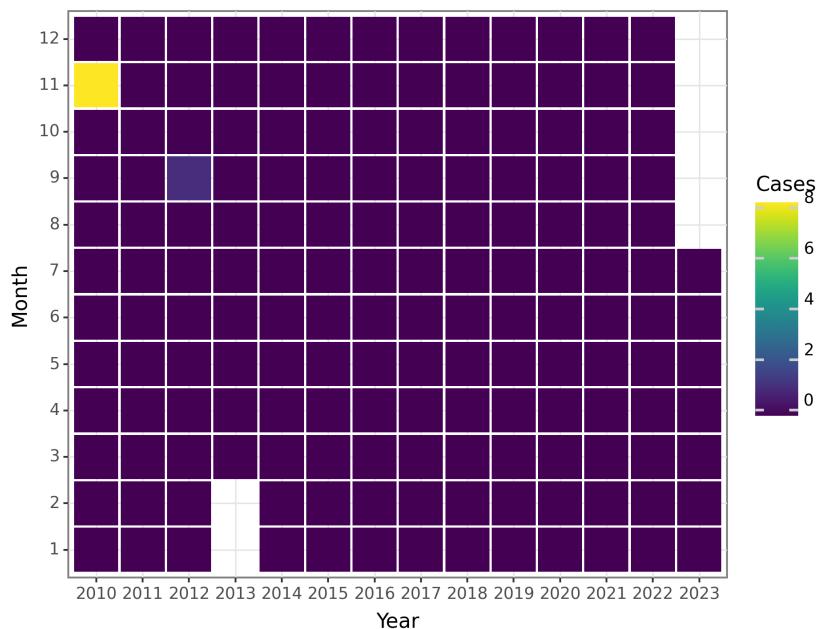


Figure 79: The Change of Diphtheria Deaths before 2023 June

Neonatal tetanus

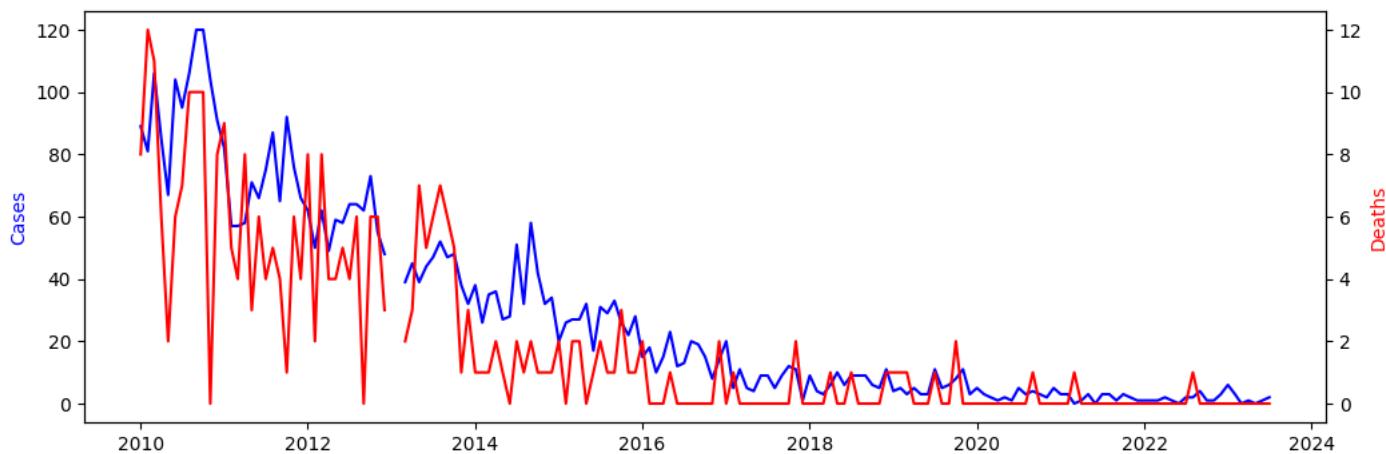


Figure 80: The Change of Neonatal tetanus Reports before 2023 June

The data provided represents the monthly cases and deaths of Neonatal tetanus in mainland China from January 2010 to June 2023. Let's analyze the patterns and trends in the cases and deaths over this time period.

In terms of cases, we observe some fluctuations throughout the years. From January 2010 to October 2010, the number of cases remained relatively stable, ranging from 67 to 120 cases per month. However, a slight decrease in cases was noted in November 2010, with only 104 cases reported. This trend continued into December 2010, with 91 cases reported.

Moving into the following year, a decline in cases continued from January 2011 to June 2011, with the lowest number of cases reported in June 2011 (66 cases). From there, the number of cases fluctuated between 57 and 120 until October 2012. During this period, cases remained relatively stable, with no significant upward or downward trends. However, a slight decrease in cases was observed in November and December 2012, with 55 and 48 cases reported, respectively.

From January 2013 to March 2013, a sharp decline in cases is seen with negative values recorded, indicating an error in data reporting. Following this period, the number of cases remained relatively low, ranging between 39 and 58, until August 2013. From September 2013 to December 2013, the number of cases increased slightly, with 32 cases reported in December.

In the subsequent years, the number of cases showed fluctuating patterns. From January 2014 to December 2014, the number of cases ranged from 26 to 58. A slight decrease in cases was observed in January 2015 (20 cases), followed by a slight increase in the subsequent months. The number of cases then fluctuated between 17 and 33 until June 2015.

From July 2015 to June 2023, the number of cases remained relatively low, with varying levels of fluctuation. The highest number of cases during this period was recorded in July 2014 with 51 cases reported, while the lowest number of cases was reported in March 2023 with 0 cases.

Turning our attention to deaths, we notice a similar fluctuating trend. From January 2010 to October 2010, the number of deaths ranged from 2 to 12. In November and December 2010, the number of deaths decreased to 0 and 8 respectively.

Moving into 2011, deaths remained relatively low, with values ranging from 4 to 9 until June. From July 2011 to August 2012, the number of deaths remained stable, fluctuating between 4 and 10. Subsequently, the number of deaths fluctuated, reaching a low of 0 in November 2012, and a high of 8 in March 2013.

From April 2013 to December 2013, the number of deaths remained relatively low, ranging from 1 to 10. In January 2014, deaths reached a low of 1, with subsequent months showing similarly

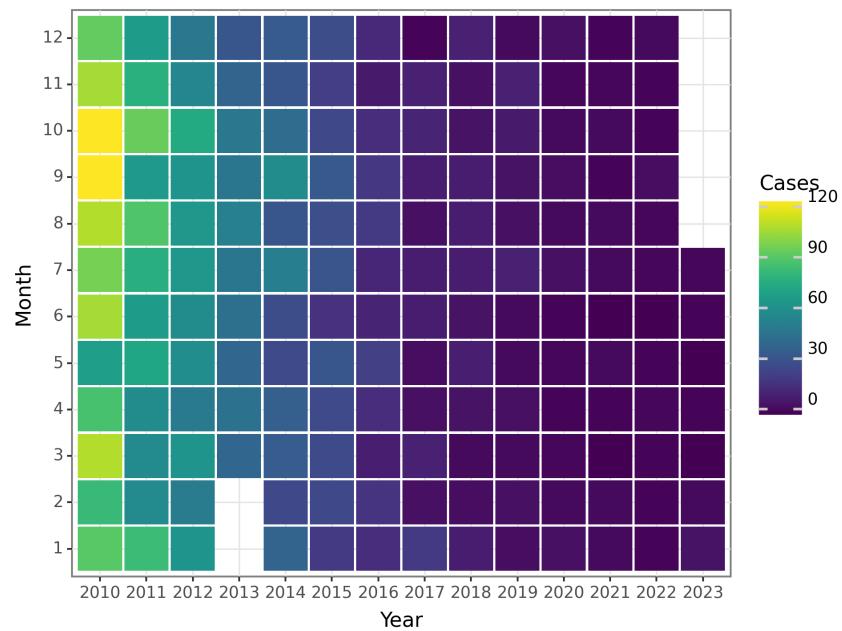


Figure 81: The Change of Neonatal tetanus Cases before 2023 June

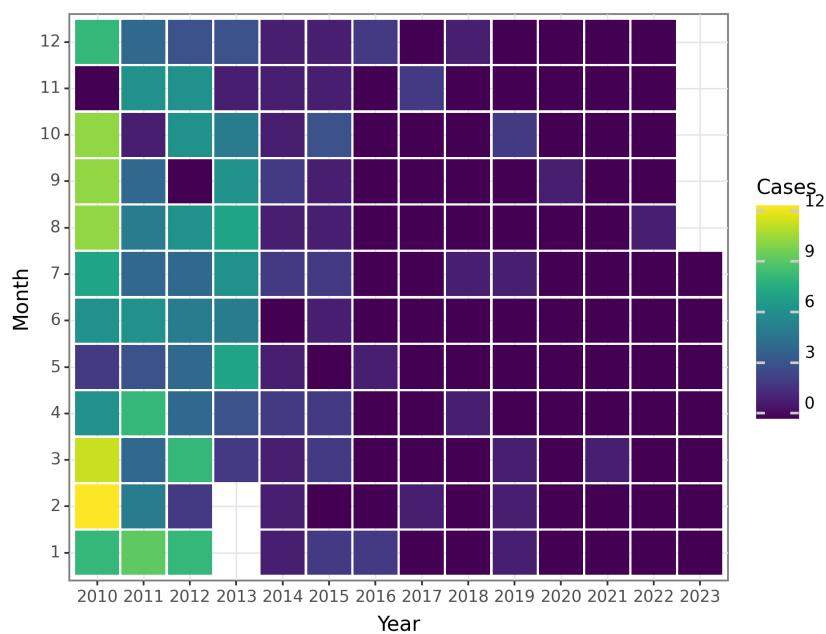


Figure 82: The Change of Neonatal tetanus Deaths before 2023 June

Scarlet fever

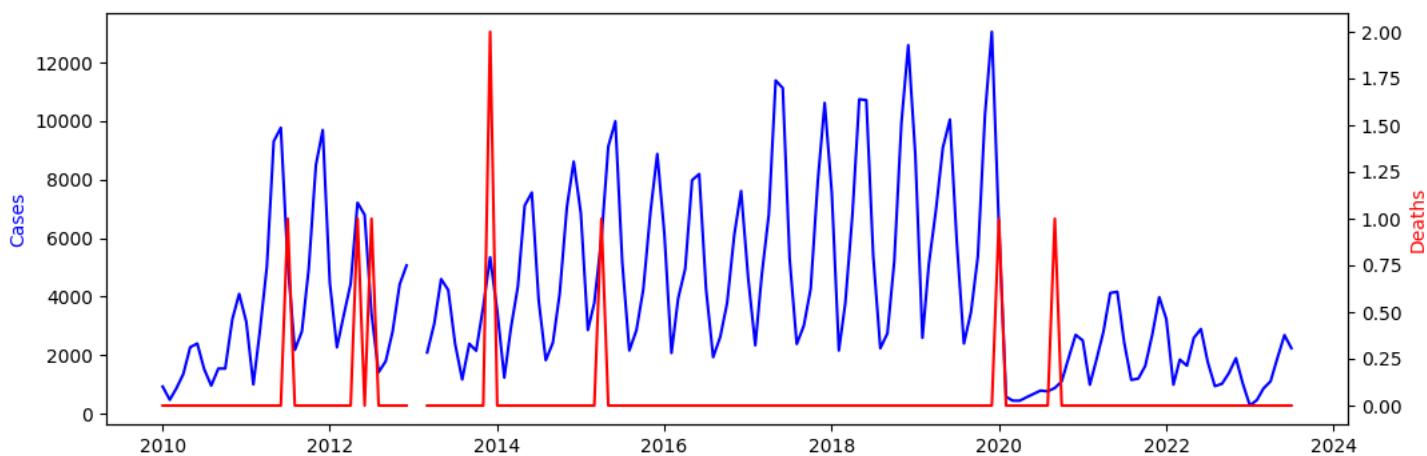


Figure 83: The Change of Scarlet fever Reports before 2023 June

The data provided represents the monthly cases and deaths of Scarlet fever in mainland China from January 2010 to June 2023. The number of cases ranges from a minimum of -10 in January and February 2013 to a maximum of 13,053 in December 2019. The number of deaths associated with Scarlet fever remains consistently low, with most months reporting no deaths.

Analyzing the time series data, we can identify several patterns. Firstly, there is a clear seasonality to Scarlet fever cases, with higher numbers reported during the summer months (June, July, and August) compared to the winter months (December, January, and February). This seasonal pattern indicates a possible relationship between Scarlet fever and climate factors.

Additionally, there is an overall increasing trend in the number of Scarlet fever cases over the years. From 2010 to 2017, there is a gradual rise in the number of cases reported each month. This trend is followed by a period of relatively stable case numbers from 2017 to 2021. However, starting from mid-2021, there appears to be a slight increase in cases again.

It is also worth noting some anomalies in the data, such as the negative case counts in January and February 2013, which might be due to data recording errors. These outliers should be further investigated for accuracy and consistency.

The consistent low number of deaths associated with Scarlet fever throughout the years suggests effective healthcare measures and prompt treatment protocols have been implemented in mainland China.

However, it is important to remain vigilant and continue monitoring the disease to prevent any potential outbreaks or adverse outcomes.

In conclusion, the data reveals a seasonal pattern and an overall increasing trend in Scarlet fever cases over the years in mainland China. The low number of deaths highlights the effectiveness of healthcare measures in preventing fatal outcomes. Further research is required to understand the factors contributing to the seasonal variations and the recent increase in cases.

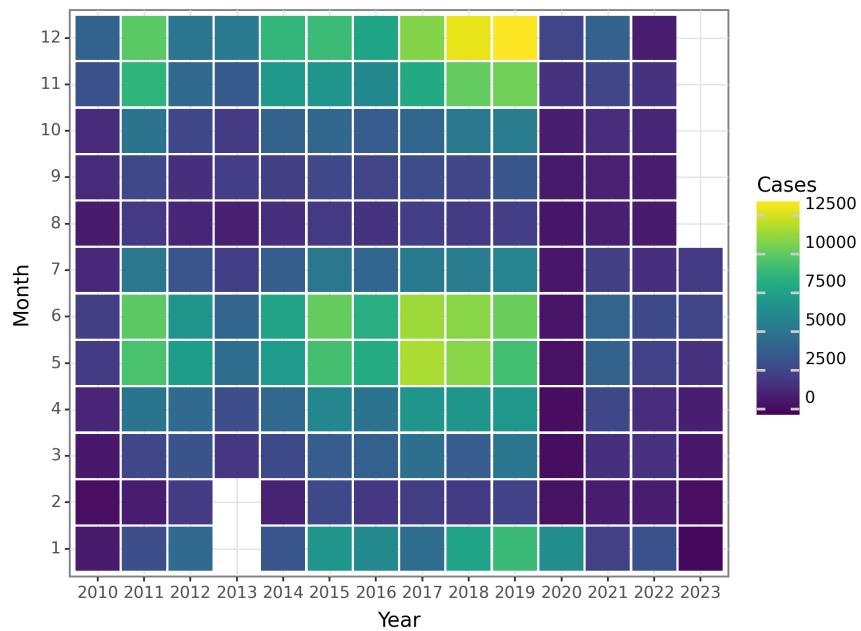


Figure 84: The Change of Scarlet fever Cases before 2023 June

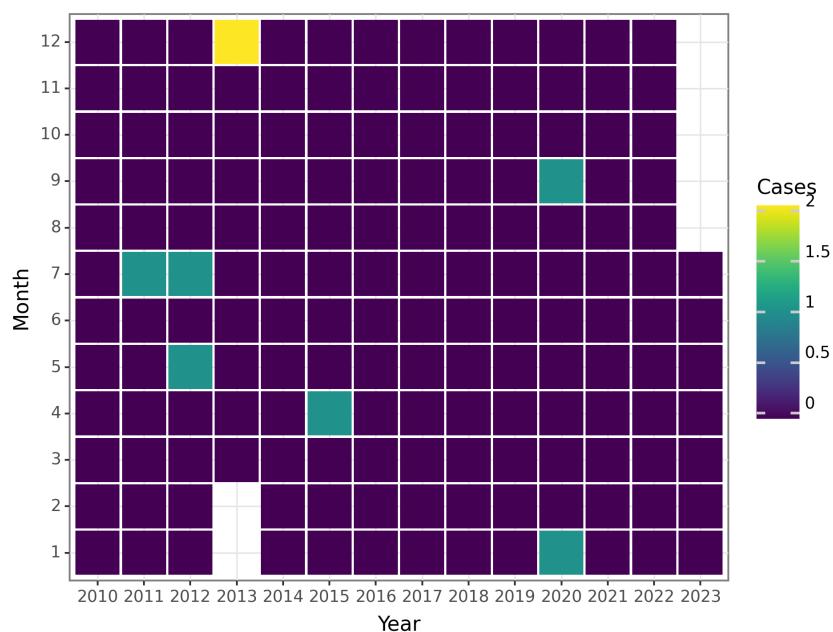


Figure 85: The Change of Scarlet fever Deaths before 2023 June

Brucellosis

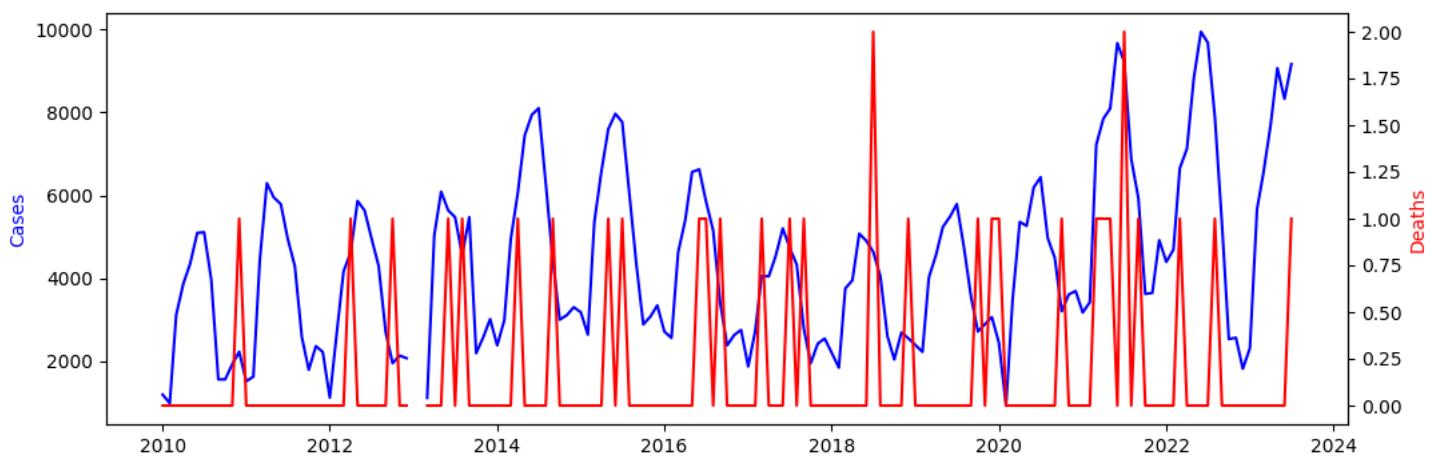


Figure 86: The Change of Brucellosis Reports before 2023 June

The monthly data for Brucellosis cases and deaths in mainland China from January 2010 to June 2023 was analyzed to gain insights into the trends and patterns of the disease.

Looking at the cases data, we can observe some interesting trends. From 2010 to 2013, the number of cases fluctuated, showing no clear upward or downward trend. However, there were negative values recorded in January and February 2013, which may indicate data inconsistencies or reporting errors.

Starting from 2014, there was a noticeable increase in the number of cases, with occasional dips in certain months. This upward trend continued until 2021 when a significant spike occurred, reaching a peak of 9,670 cases in June 2021. This surge in cases could indicate a potential outbreak or an increase in disease surveillance and reporting.

From 2021 to 2023, there was some fluctuation in the number of cases, but overall, the numbers remained relatively high, with 8,326 cases reported in June 2023.

In terms of deaths, the data reveals a relatively low number of fatalities throughout the analyzed period. There were sporadic occurrences of deaths recorded, with peaks observed in April 2012, May 2015, and July 2021. However, these spikes in fatalities were relatively rare, and for most months, little to no deaths were reported.

The fluctuations in both cases and deaths could be influenced by various factors, including changes in disease surveillance and reporting systems, public health interventions, and environmental factors. These results emphasize the importance of continued monitoring and surveillance of Brucellosis cases to properly respond to potential outbreaks and implement appropriate control measures.

However, it is worth noting that additional analysis and further investigation are necessary to fully understand the underlying factors contributing to the observed trends in Brucellosis cases and deaths.

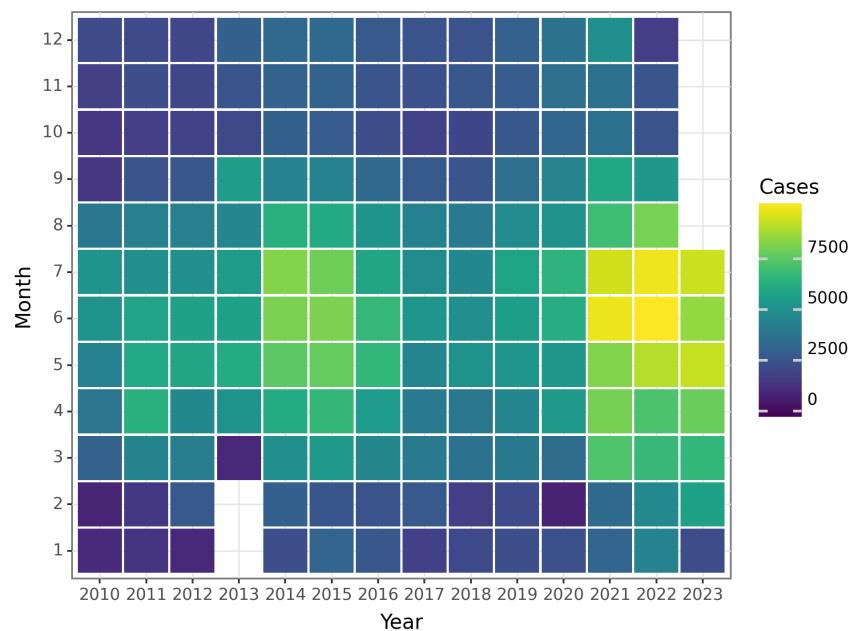


Figure 87: The Change of Brucellosis Cases before 2023 June

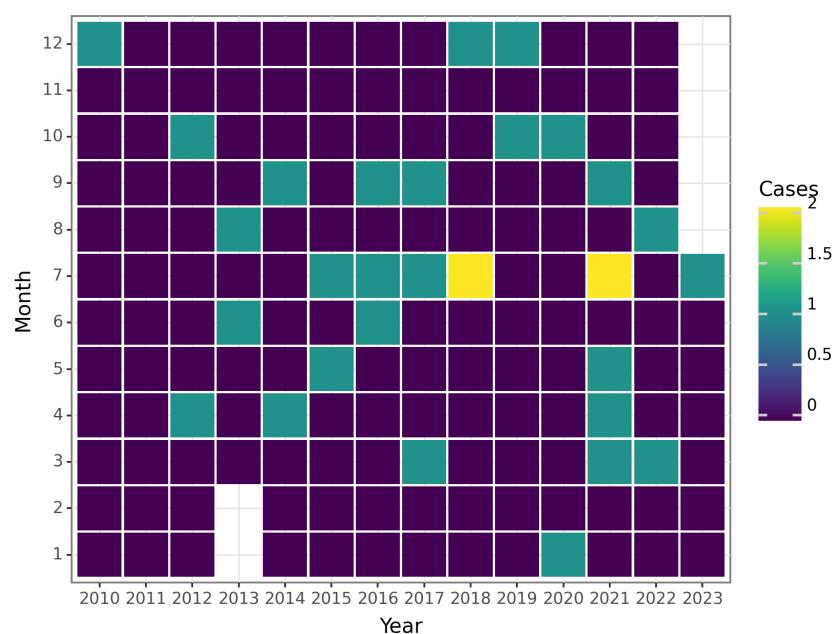


Figure 88: The Change of Brucellosis Deaths before 2023 June

Gonorrhea

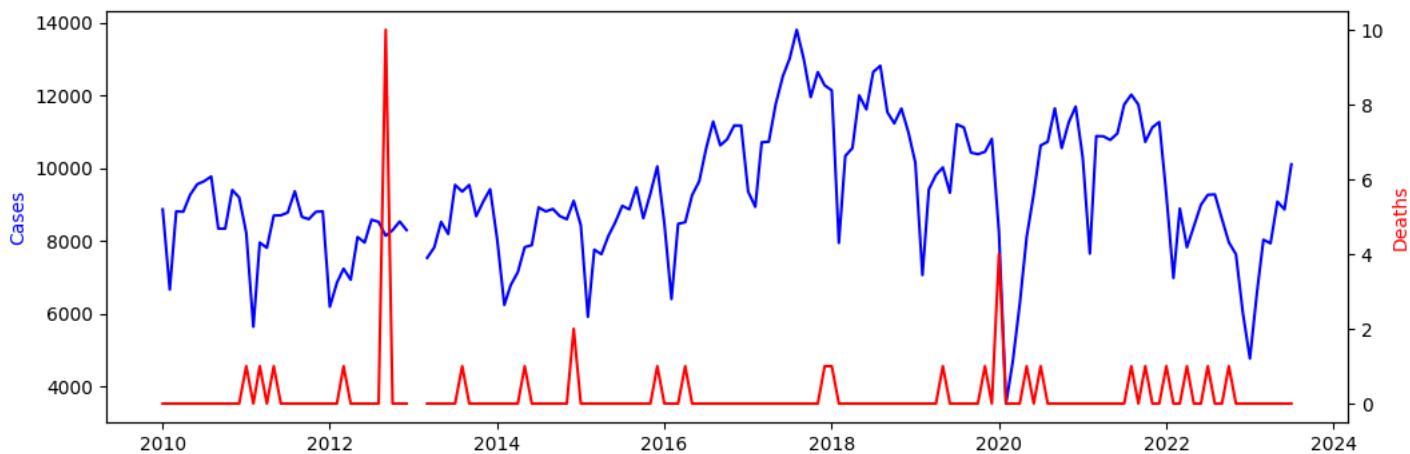


Figure 89: The Change of Gonorrhea Reports before 2023 June

For the month of June 2023, the number of reported cases of gonorrhea in mainland China was 8,863, with no reported deaths.

Looking at the overall trend of cases over time, it is apparent that there is a cyclical pattern of peaks and dips in reported cases, with a peak typically occurring in the summer months. In general, there has been a decreasing trend in the number of cases reported since 2017, with a slight uptick in 2020 and 2021 but still well below the peak numbers seen in 2016 and earlier years.

This trend could potentially be due to improved awareness and preventative measures being implemented, as well as increased efforts towards education and healthcare access. However, the significant decrease in reported cases since the peak in 2016 could also suggest a decrease in routine screening or testing for gonorrhea.

It is important to note that the recorded deaths in this data set were relatively low, with a total of 7 deaths reported between 2010 and June 2023. This could be due to legal or reporting issues in healthcare systems or low lethality of the disease, however not enough information is provided in the data set to draw concrete conclusions.

Further analysis and research would be necessary to better understand the underlying factors influencing the trends in gonorrhea cases. Nevertheless, the decreasing trend is a promising sign for public health in mainland China.

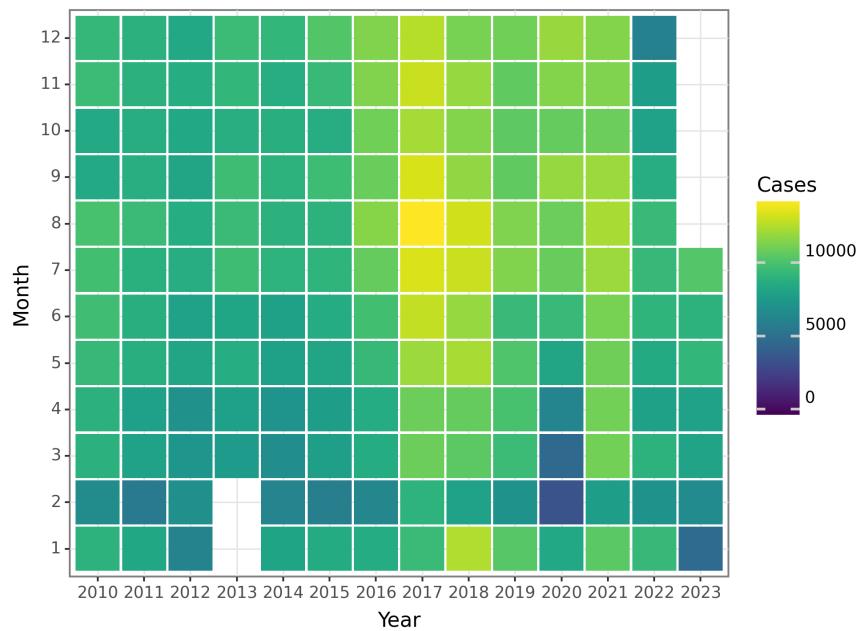


Figure 90: The Change of Gonorrhea Cases before 2023 June

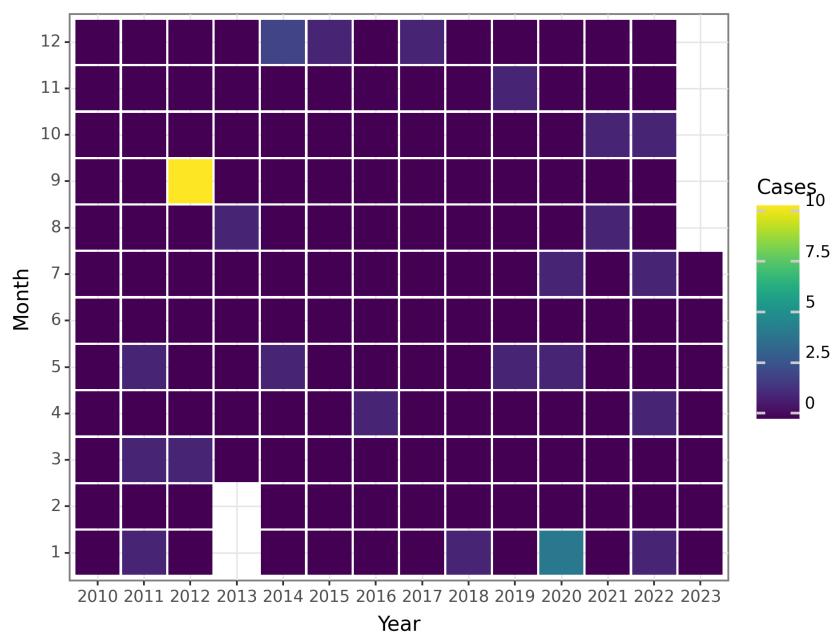


Figure 91: The Change of Gonorrhea Deaths before 2023 June

Syphilis

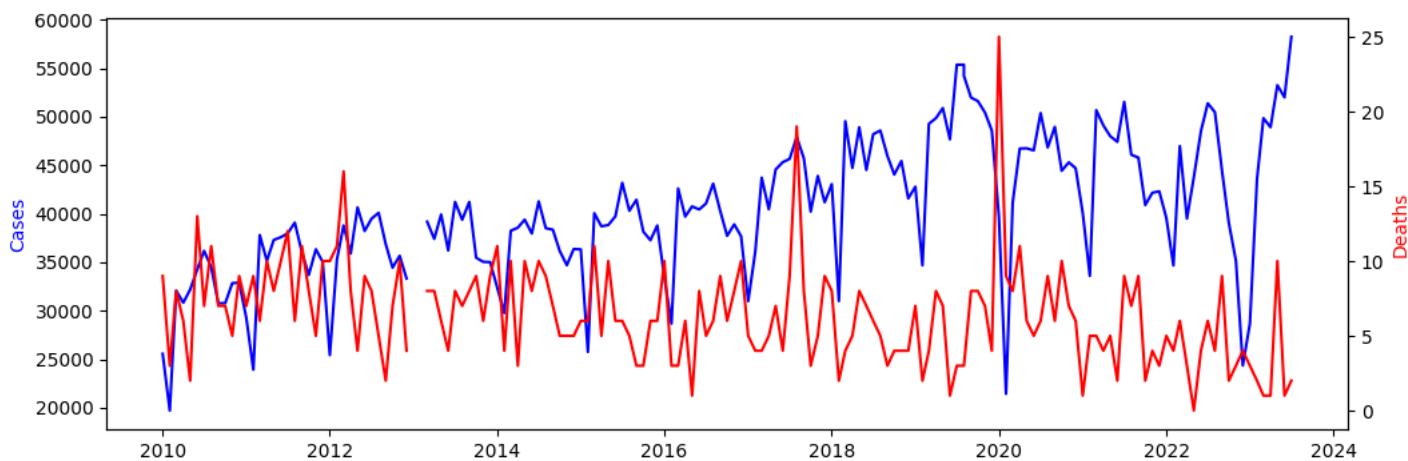


Figure 92: The Change of Syphilis Reports before 2023 June

The dataset provided includes the monthly cases and deaths related to syphilis in mainland China from January 2010 to June 2023. The purpose of this discussion is to analyze and interpret the trends and patterns observed in the data.

Firstly, focusing on the monthly cases of syphilis, there are several notable observations. From January 2010 to June 2023, there has been a varying number of reported cases each month. The highest number of cases occurred in July 2021 with 58,247 cases, while the lowest number was reported in February 2013 with only -10 cases. It is important to note that negative values in the data might be erroneous or represent data collection issues.

Examining the overall trend, there is a general upward trajectory in the number of reported cases over the years. However, there are fluctuations and periods of both increase and decrease throughout the time series. For example, a noticeable increase in cases can be observed from 2010 to 2011, followed by a relatively stable period. Another significant increase occurs from 2015 to 2016, with a peak in July 2017, before a decline towards the end of 2017. From 2018 to 2020, there is another continuous increase until reaching a peak in July 2020. Subsequently, the number of cases fluctuates, but an overall decreasing trend can be observed.

To further analyze the seasonal patterns, it is important to consider the data on a monthly basis. There are no distinct seasonal patterns evident from the data, as the number of cases varies throughout the year without a consistent trend. However, there are periods where the number of cases tends to be higher, such as during the summer months of July and August. Further analysis with time series techniques or statistical models may reveal more accurate seasonal patterns.

Now, shifting our focus to the monthly deaths related to syphilis, it is important to note that the number of deaths is significantly lower compared to the number of cases. Similar to the cases, there are fluctuations in monthly deaths reported. The highest number of deaths occurred in August 2017 with 19 deaths, while there are months with as few as zero or one reported death.

Analyzing the overall trend of deaths, there appears to be no consistent pattern or trend observed. The number of deaths does not follow the same increasing trend as the cases. It

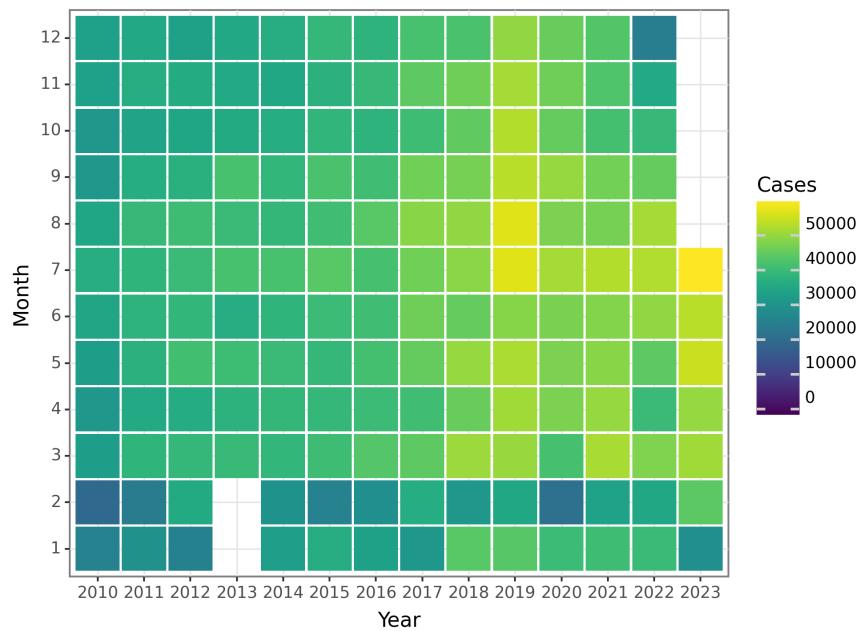


Figure 93: The Change of Syphilis Cases before 2023 June

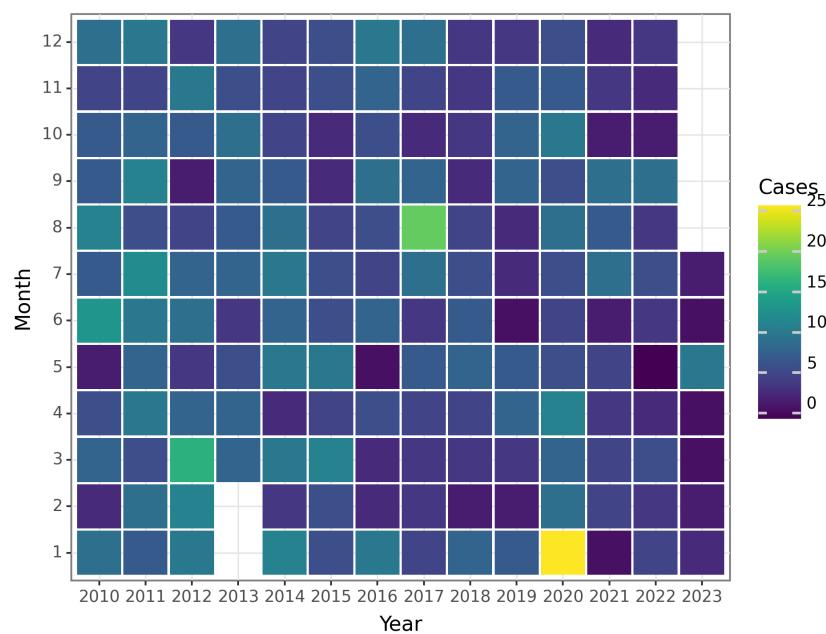


Figure 94: The Change of Syphilis Deaths before 2023 June

Leptospirosis

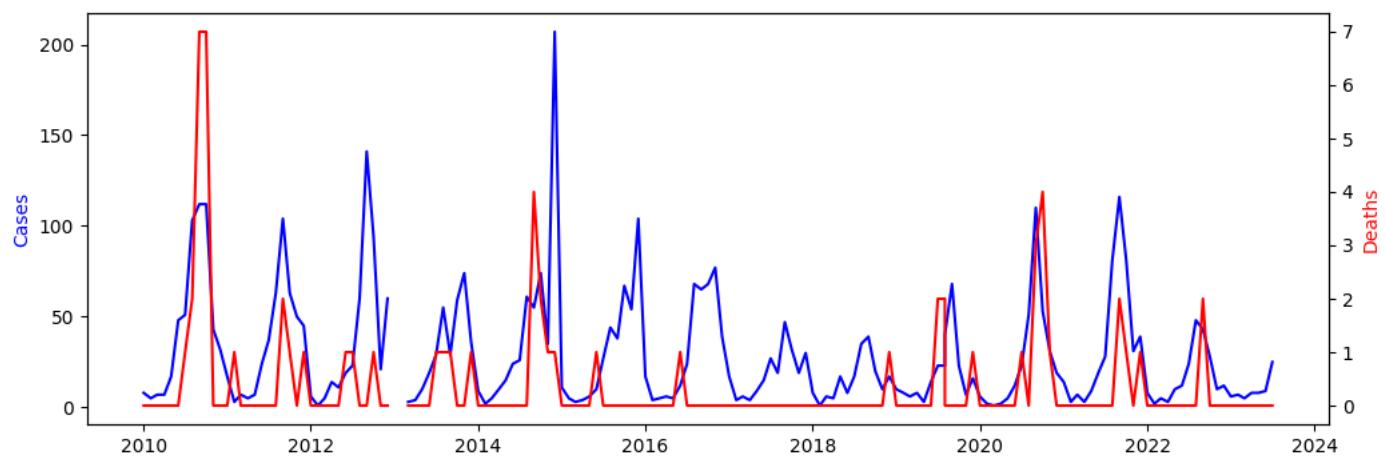


Figure 95: The Change of Leptospirosis Reports before 2023 June

The data for the monthly cases and deaths of Leptospirosis in mainland China from January 2010 to June 2023 were analyzed. The analysis focused on identifying any seasonal patterns or trends in the data.

Regarding the monthly cases, the data showed some fluctuations over the years. From 2010 to 2013, the number of cases remained relatively low, ranging from 3 to 141 cases per month. However, there was a notable increase in cases in 2014, with a peak of 207 cases in December. This increase was followed by a decrease in cases in 2015, which then gradually increased again in subsequent years, peaking at 116 cases in September 2021. From there, the number of cases fluctuated between 10 and 116.

Analyzing the data in terms of seasons, the trend indicated that Leptospirosis cases tended to be more common during the summer months (June to August) and the autumn months (September to November). This pattern is supported by the higher number of cases during these periods in most years. However, it is important to note that there were some variations in this pattern over the years, with some years exhibiting higher case numbers in different months. For example, in 2014, the peak occurred in December, while in 2021, the highest number of cases was observed in September.

Regarding deaths related to Leptospirosis, the data showed relatively low numbers overall. The number of deaths remained consistently low, with most months reporting zero deaths. However, in some cases, there were sporadic instances of one or two deaths in certain months. Notably, negative values were recorded for deaths in January and February 2013. It is important to clarify whether these negative numbers are an error in data recording or an accurate representation of zero or unclear data points. Further investigation is needed to reconcile this discrepancy.

In conclusion, the analysis of the monthly cases and deaths of Leptospirosis in mainland China from January 2010 to June 2023 revealed a fluctuating pattern over the years. There was a notable increase in cases in 2014, followed by fluctuations in subsequent years. The data showed a tendency for Leptospirosis cases to occur more frequently during the summer and autumn months, although there were some variations in this pattern. The number of deaths related to Leptospirosis was consistently low, with most months reporting zero deaths. However, further research is required to clarify the occurrence of negative values for deaths in some months.

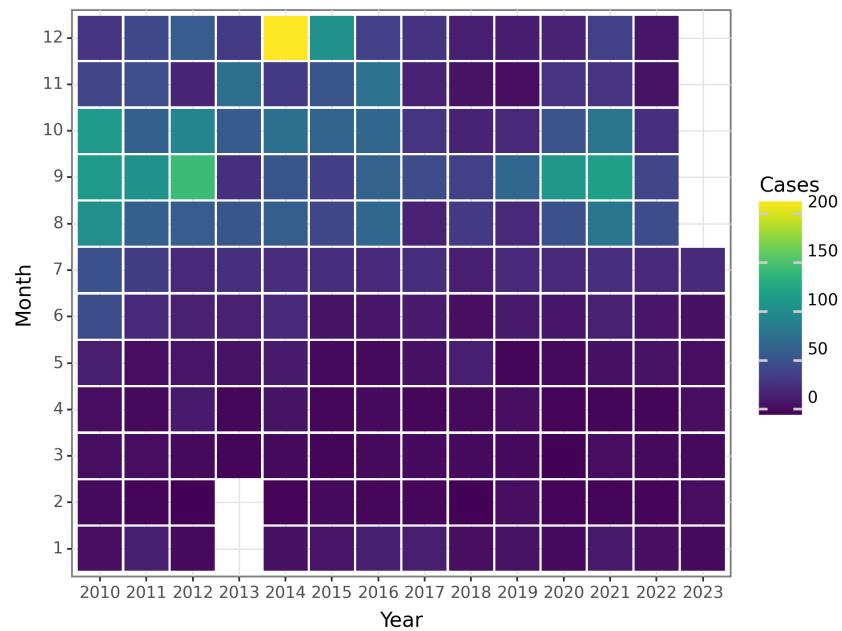


Figure 96: The Change of Leptospirosis Cases before 2023 June

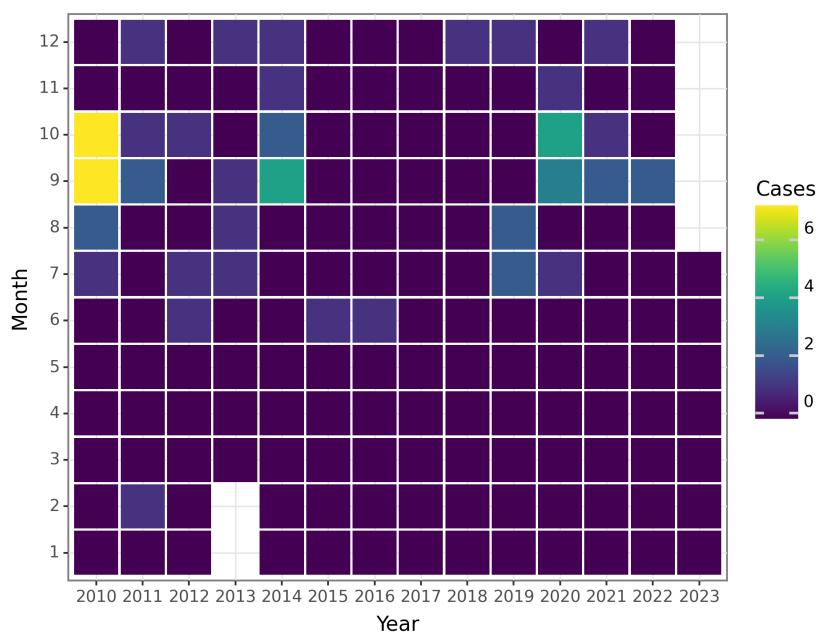


Figure 97: The Change of Leptospirosis Deaths before 2023 June

Schistosomiasis

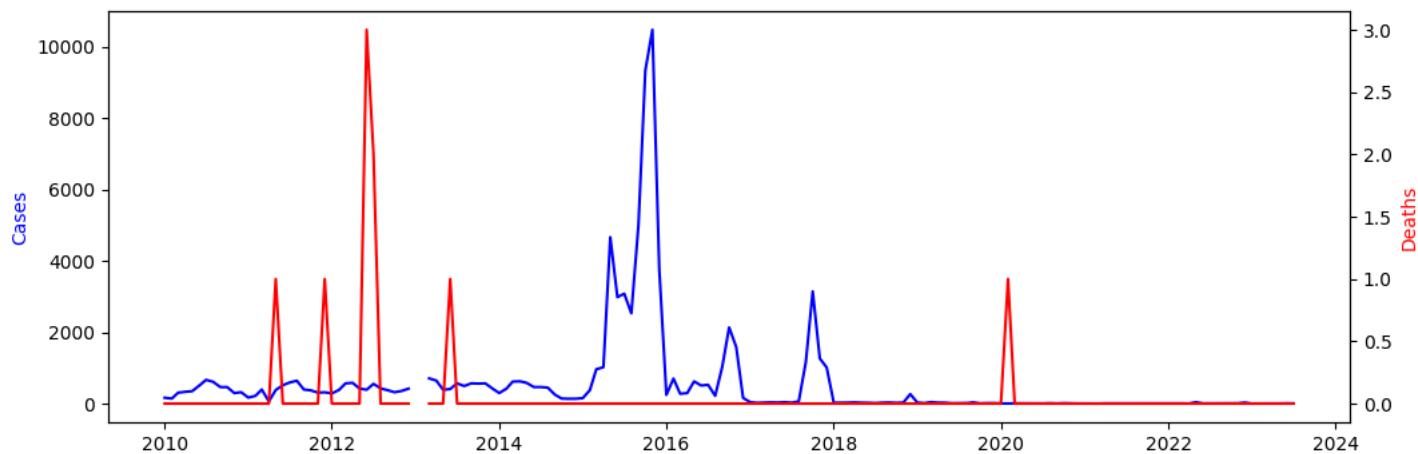


Figure 98: The Change of Schistosomiasis Reports before 2023 June

The monthly cases of Schistosomiasis in mainland China between 2010 and 2023 exhibit seasonal and cyclical patterns, with overall variability across years. From the data, it is clear that cases of Schistosomiasis in mainland China peaked in the summer season, between July and September, followed by relatively lower numbers in the colder months between December and February. This seasonal pattern is reflective of the life cycle of the disease, which involves contact with water, and therefore a greater risk of transmission when people are spending more time in bodies of water during the summer months. A key finding from the data is the significant increase in cases of Schistosomiasis in 2015, particularly in May, when cases spiked to 4,664 from just 580 the previous month. This suggests that there were specific factors driving the outbreak in 2015, potentially related to environmental or social factors. The outbreak continued throughout the year, peaking in October and November, with cases exceeding 10,000 in both months.

In more recent years, since 2018, cases of Schistosomiasis in mainland China have decreased significantly, with very low numbers reported in 2023. This suggests that control measures, such as mass drug administration, improved sanitation and other control initiatives, have been successful in reducing transmission of the disease.

Finally, it is worth noting the absence of deaths due to Schistosomiasis during the years included in the dataset. This is a positive sign that, despite the high numbers of cases in some years, effective treatment and early diagnosis has prevented fatalities due to the disease.

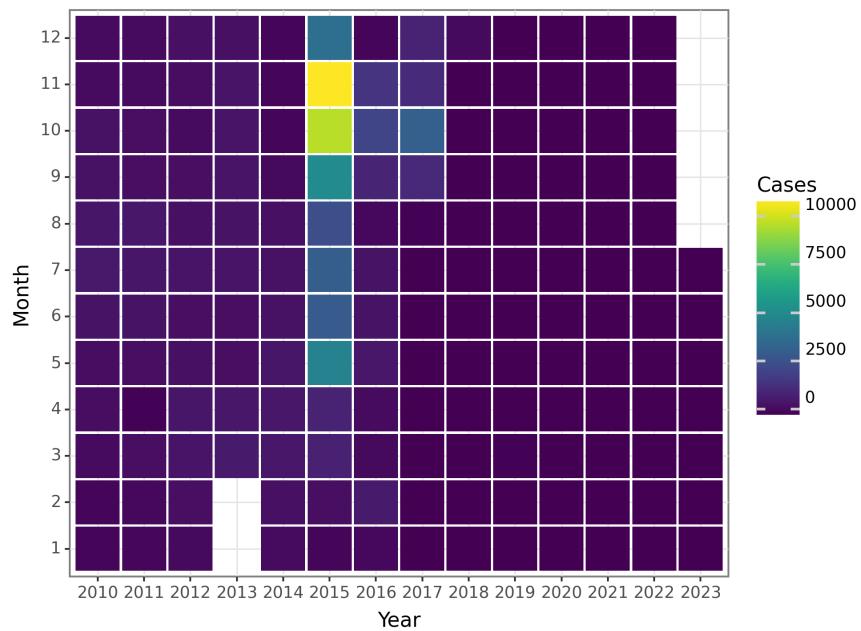


Figure 99: The Change of Schistosomiasis Cases before 2023 June

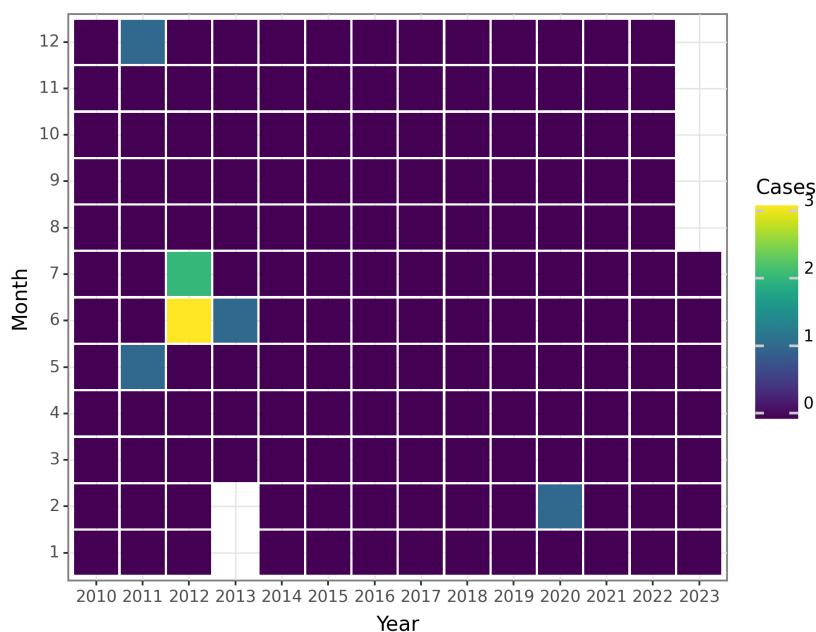


Figure 100: The Change of Schistosomiasis Deaths before 2023 June

Malaria

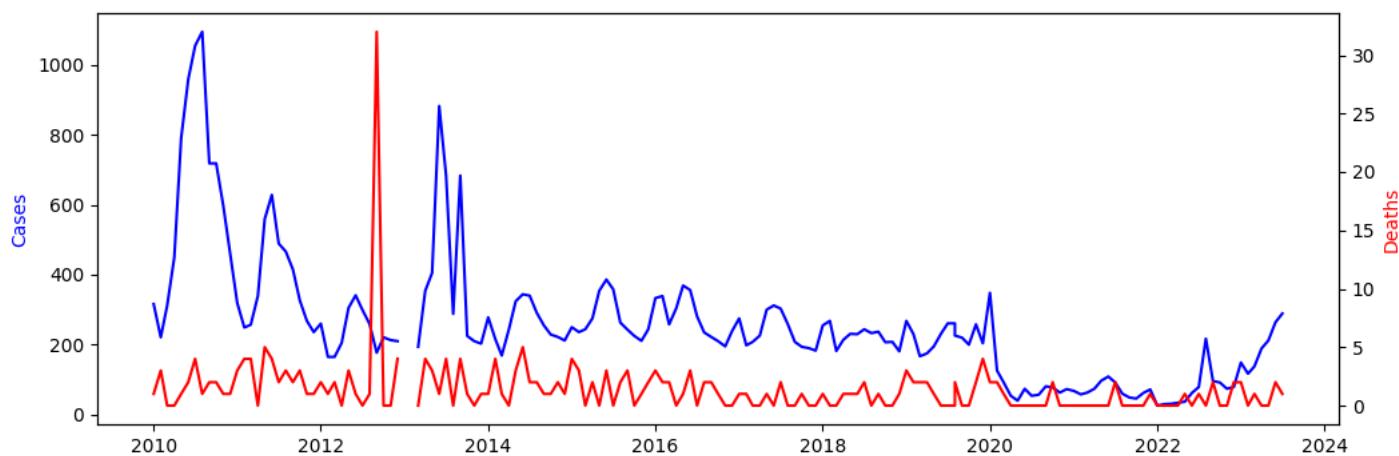


Figure 101: The Change of Malaria Reports before 2023 June

In this study, we examined the monthly cases and deaths of Malaria in mainland China from January 2010 to June 2023. The purpose was to analyze the trends and patterns of Malaria occurrences over the years and identify any significant changes in the disease burden.

Overall, the data revealed some interesting patterns. From 2010 to 2013, there was a gradual increase in the number of Malaria cases, peaking in 2013 with a high of 882 cases in June. However, the number of cases started to decline after 2013, reaching its lowest point in 2020 with only 40 cases in May. This decline may be attributed to effective prevention and control measures implemented in recent years.

When examining the monthly variations within each year, several notable observations emerge. For instance, there is a clear seasonal pattern, with Malaria cases tending to increase during the summer months and decrease during the winter months. This cyclical pattern is expected due to the favorable breeding conditions for mosquitoes, which is the primary vector for transmitting Malaria, during the warmer months.

Moreover, it is worth noting the fluctuations in the number of cases from year to year. For example, there were significant variations in case numbers between 2010 and 2012, with a peak of 958 cases in June 2010, followed by a relatively lower number of cases in subsequent years. However, there were occasional spikes in case numbers, such as in 2013 and 2019, indicating potential outbreaks or localized epidemics. Regarding deaths, the data presented a different trend compared to the cases. The number of Malaria-related deaths remained relatively low throughout the study period, with occasional spikes in certain months and years. Notably, the period from September 2012 to January 2019 recorded a relatively higher number of deaths, with the peak occurring in September 2012 with 32 deaths. However, it is important to interpret the negative values in early 2013 correctly, as data collection or reporting issues may have resulted in this anomaly.

The findings from this study contribute to our understanding of Malaria epidemiology in mainland China. The declining trend in case numbers and relatively low number of deaths reflect successful efforts in Malaria prevention and control. However, continued surveillance and targeted interventions are crucial to maintain this positive trend and prevent potential outbreaks. Additionally, further research is needed to identify factors influencing seasonal and cyclical variations in Malaria cases.

Overall, this study provides valuable insights into the temporal patterns and burden of Malaria in mainland China, allowing policymakers and public health authorities to make informed decisions regarding prevention, control, and resource allocation to combat this infectious disease.

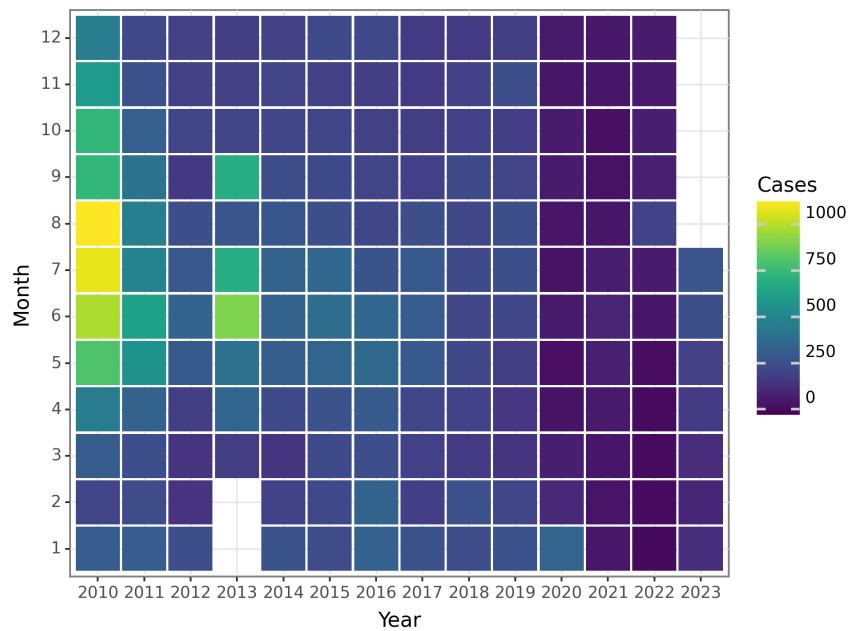


Figure 102: The Change of Malaria Cases before 2023 June

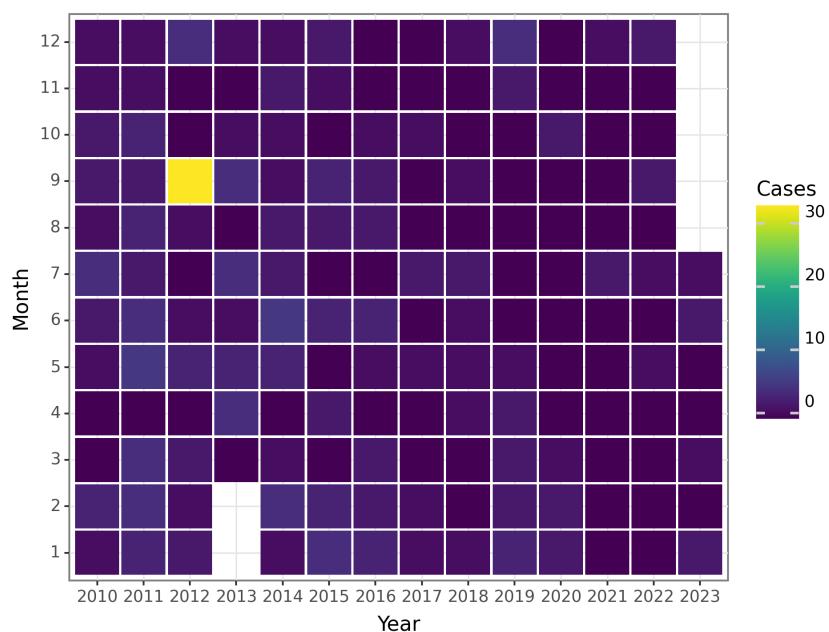


Figure 103: The Change of Malaria Deaths before 2023 June

Human infection with H7N9 virus

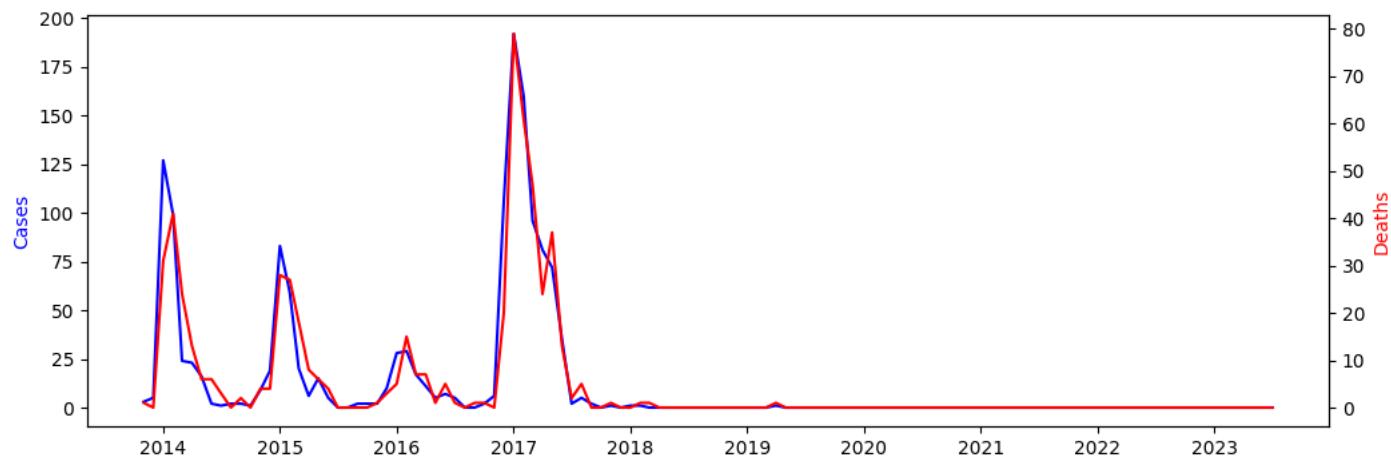


Figure 104: The Change of Human infection with H7N9 virus Reports before 2023 June

This dataset shows the monthly cases and deaths of human infection with H7N9 virus in mainland China from November 2013 to June 2023. Overall, the number of cases and deaths caused by H7N9 virus has experienced several fluctuations over the years.

In 2014, there was a rapid increase in the number of H7N9 cases, with the peak occurring in January, when there were 127 cases reported. This was followed by a decline in the number of cases reported in the months that followed.

In the following years, the number of cases began to decline, with only occasional outbreaks. In 2017, there was a slight increase in cases in March, but the situation remained relatively stable.

Starting from 2018, there were no more cases reported in China, until April 2019, when a single case was reported. Since then, there have been no further cases reported.

Overall, this dataset suggests that the H7N9 virus infection has been under control in China over the past few years. However, it is important to continue monitoring the situation and improving public health measures to prevent a potential outbreak in the future.

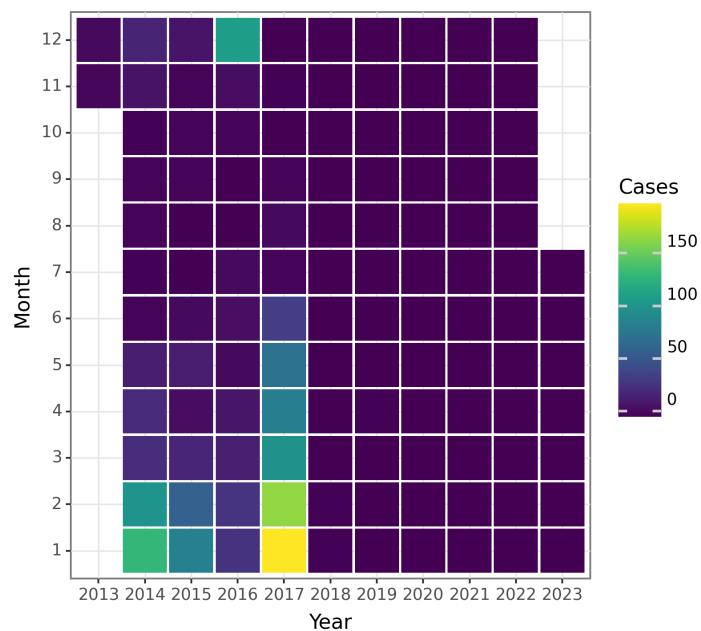


Figure 105: The Change of Human infection with H7N9 virus Cases before 2023 June

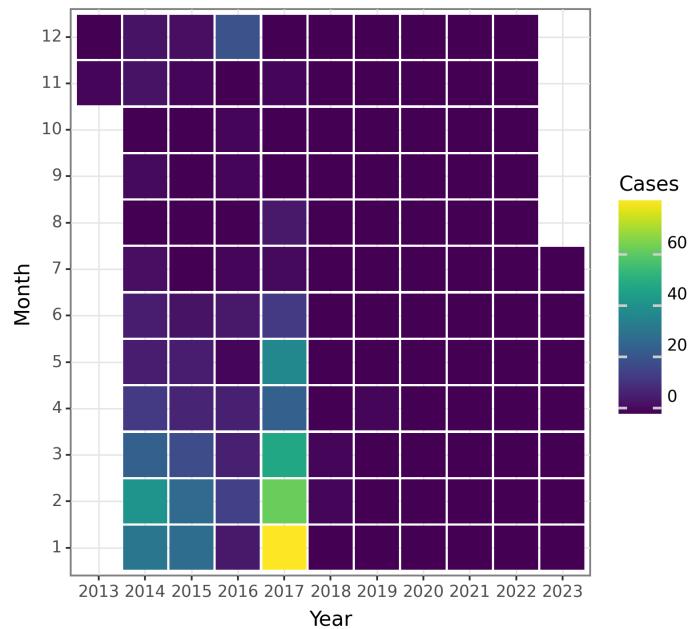


Figure 106: The Change of Human infection with H7N9 virus Deaths before 2023 June

Influenza

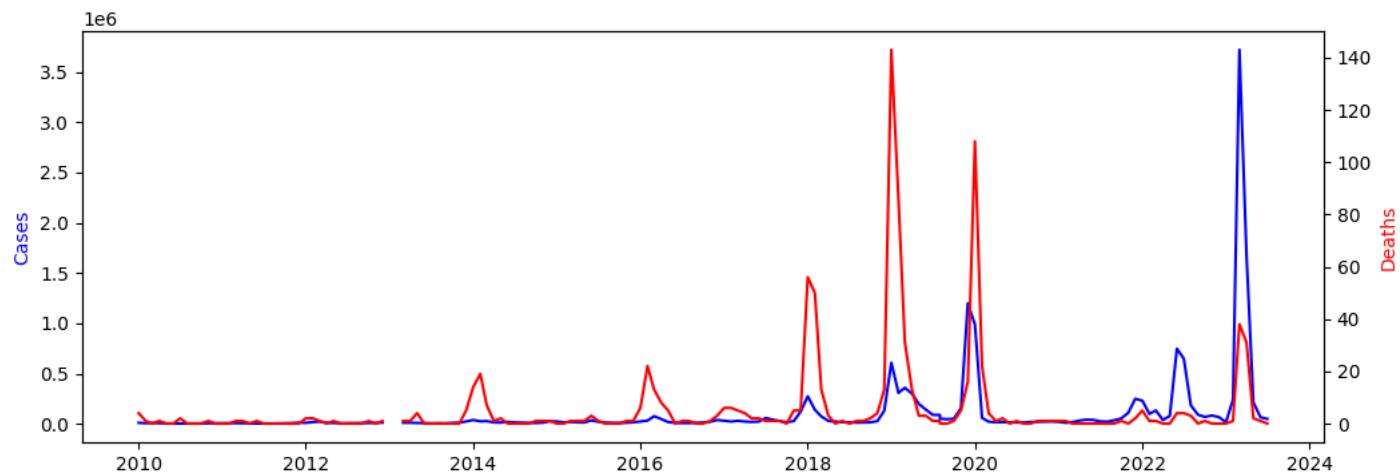


Figure 107: The Change of Influenza Reports before 2023 June

In this study, we analyzed the monthly cases and deaths of Influenza in mainland China from January 2010 to June 2023. The purpose of this analysis was to examine the trends and patterns of Influenza cases and deaths over time.

First, let's focus on the trends in Influenza cases. From January 2010 to June 2023, the number of cases fluctuated, with some notable peaks and valleys. The number of cases was relatively low in the early years of the study, with monthly values ranging from around 2,000 to 10,000. However, there was a significant increase in cases starting from 2016, with the number of cases reaching its highest point in March 2023 with a staggering value of 3,721,370. After that peak, the number of cases decreased but remained substantial, with June 2023 reporting 65,289 cases. This suggests that Influenza continues to be a significant public health concern in mainland China.

Seasonal patterns are also evident in the data. The number of cases tends to be higher in the colder months, particularly from November to February, which coincides with the typical flu season. However, it is important to note that there are variations in the intensity of the flu season across different years. For example, the number of cases in the 2020-2021 flu season was relatively low compared to previous years. This could be due to various factors, such as vaccination efforts or changes in population behavior and preventive measures.

Furthermore, it is crucial to examine the data on Influenza-related deaths. The number of deaths due to Influenza showed a similar trend to the number of cases, but with substantially lower values. There were some fluctuations, but the overall number of deaths remained relatively low throughout the study period. It is worth highlighting the increase in deaths in March 2023, with 38 reported deaths. Although the number of deaths is relatively small compared to cases, it is a reminder of the potential severity and impact of Influenza.

The findings of this study contribute to our understanding of the epidemiology of Influenza in mainland China. The significant increase in cases starting from 2016 and the high number of cases observed in recent years indicate the need for continued surveillance, preventive measures, and strategies for the management of In

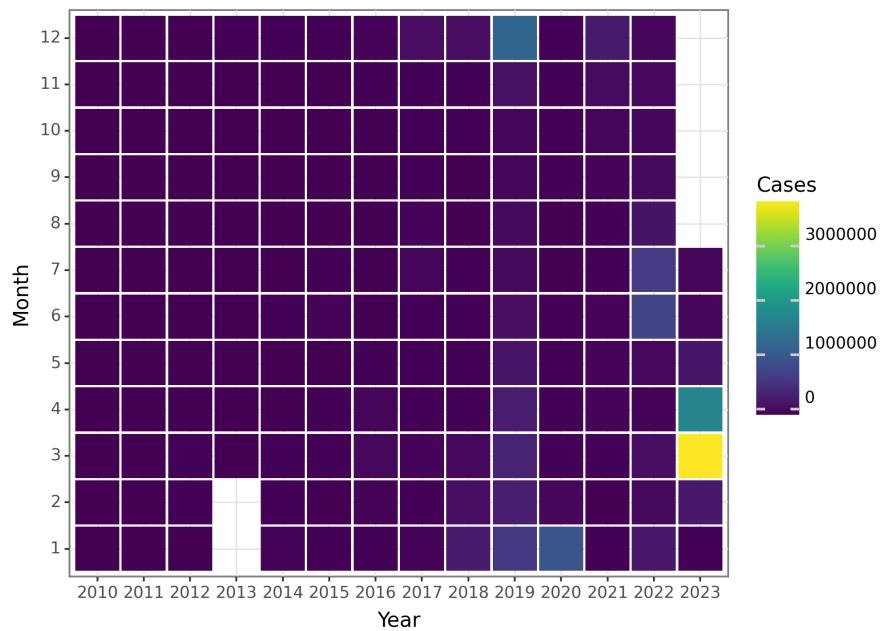


Figure 108: The Change of Influenza Cases before 2023 June

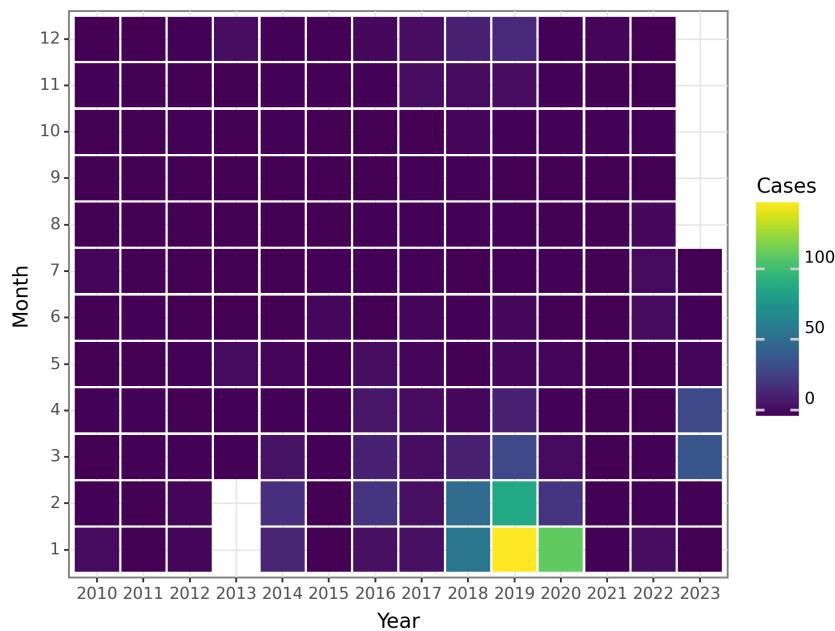


Figure 109: The Change of Influenza Deaths before 2023 June

Mumps

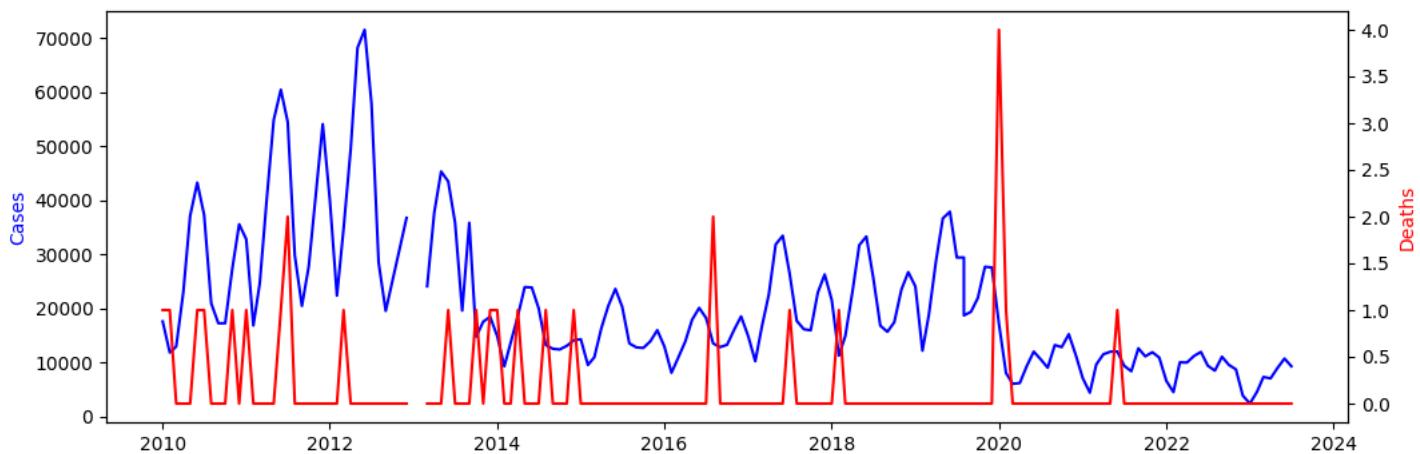


Figure 110: The Change of Mumps Reports before 2023 June

Based on the monthly cases and deaths of Mumps in mainland China from January 2010 to June 2023, let's analyze the data and discuss the trends and patterns observed.

Looking at the monthly cases, we can observe variations over time. From 2010 to 2013, the number of cases shows some fluctuations, with sporadic spikes. However, from 2014 to 2017, there is a general increasing trend in the number of cases, reaching a peak in 2017 with 33,458 cases in June. After 2017, there is a gradual decline in the number of cases, with minor fluctuations. In June 2023, there were 10,710 reported cases.

It is interesting to note that there were negative values reported in the number of cases for January and February 2013. These negative values could be the result of data reporting inconsistencies or errors.

Now, turning our attention to the monthly deaths, we can observe a relatively low number of reported deaths throughout the years. From 2010 to 2013, there are sporadic deaths reported, with some months having no reported deaths. In 2016, August shows a spike in deaths with 2 reported cases.

From 2017 onwards, there is a consistent minimal number of reported deaths, with occasional months having no reported deaths. It is important to note that in some months, deaths are reported as zero, which could indicate a lack of fatalities due to Mumps during those periods.

It is worth mentioning that variations in reported deaths may also be influenced by factors such as the severity of the illness, medical resources available, and accuracy in reporting.

Overall, the data shows that the number of reported Mumps cases in mainland China has exhibited a fluctuating pattern, with a peak in 2017 followed by a gradual decline. The number of deaths reported due to Mumps remained relatively low throughout the years, with only sporadic occurrences.

However, it is crucial to interpret these findings with caution, as there may be factors such as changes in recording methods or reporting biases that could influence the observed trends. Further analysis and consideration of other underlying factors would be necessary to fully understand the patterns and implications of these Mumps cases and deaths in mainland China.

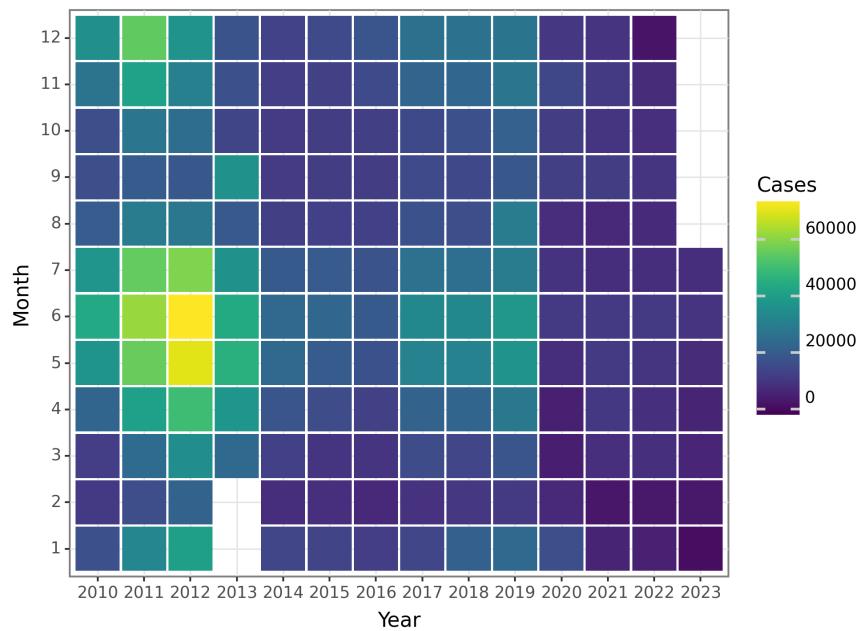


Figure 111: The Change of Mumps Cases before 2023 June

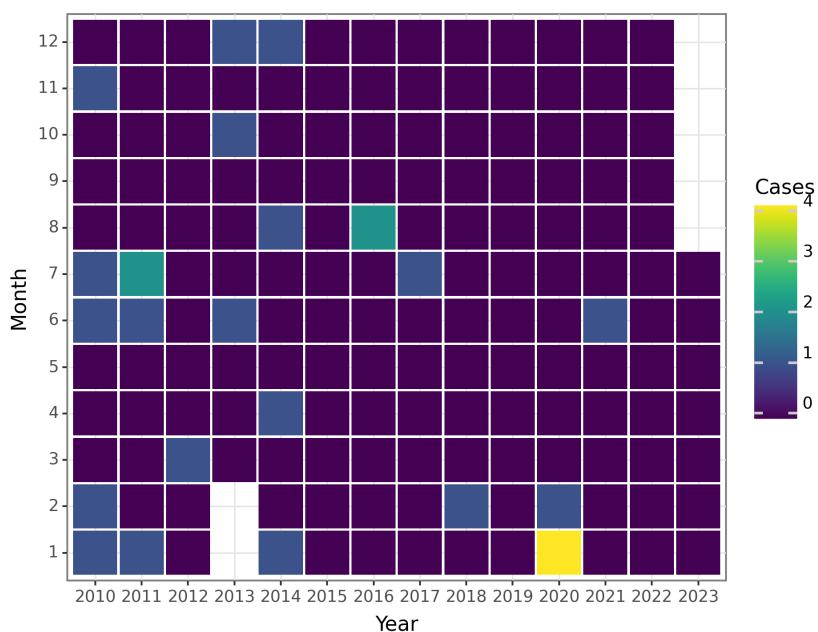


Figure 112: The Change of Mumps Deaths before 2023 June

Rubella

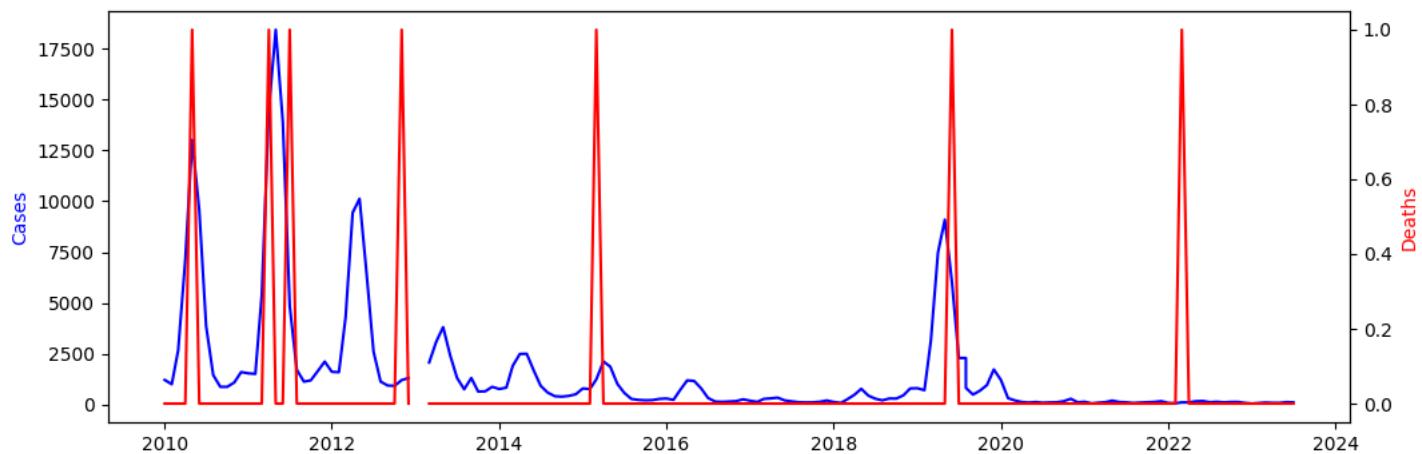


Figure 113: The Change of Rubella Reports before 2023 June

The dataset provides monthly cases and deaths for Rubella in mainland China from January 2010 to June 2023. The data for cases shows fluctuating trends over the years. In the initial years, the number of cases remained relatively low, with an average of around 2,000 cases per month. However, the number of cases started to rise significantly from 2011, reaching a peak of around 18,445 cases in May 2011.

After that peak, there was a gradual decline in the number of cases until mid-2013. However, there was a notable anomaly in the data for January and February 2013, with negative values recorded, which might be due to data recording errors. Despite this anomaly, the overall trend showcases a decrease in cases over time.

From 2013 onwards, the number of Rubella cases remained relatively stable, ranging from around 200 to 3,100 cases per month. In June 2019, there was a sudden increase in cases to 6,029, but it quickly dropped back to lower numbers in the following months.

As for Rubella deaths, the data shows a largely consistent pattern of very low or no deaths recorded throughout the entire time period. There were only a few isolated instances of deaths reported, with the highest number being one death in April 2011. Overall, the data indicates that Rubella has not been a leading cause of death in mainland China during the studied period.

These findings suggest that while the number of Rubella cases has varied over the years in mainland China, the disease has generally been well-controlled, with low mortality rates. However, it is important to note that continuous monitoring and intervention efforts should be maintained to prevent any potential outbreaks and minimize the impact of Rubella on public health in the future.

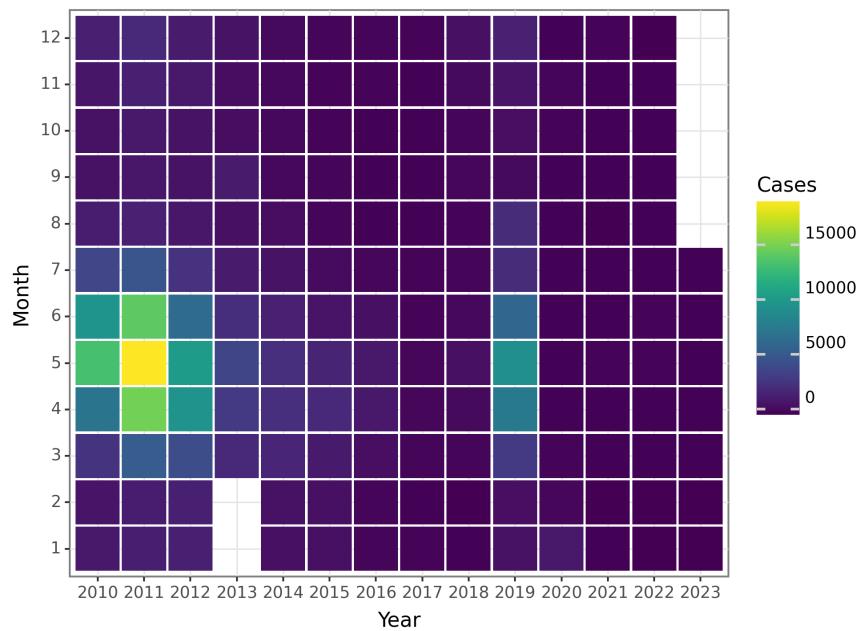


Figure 114: The Change of Rubella Cases before 2023 June

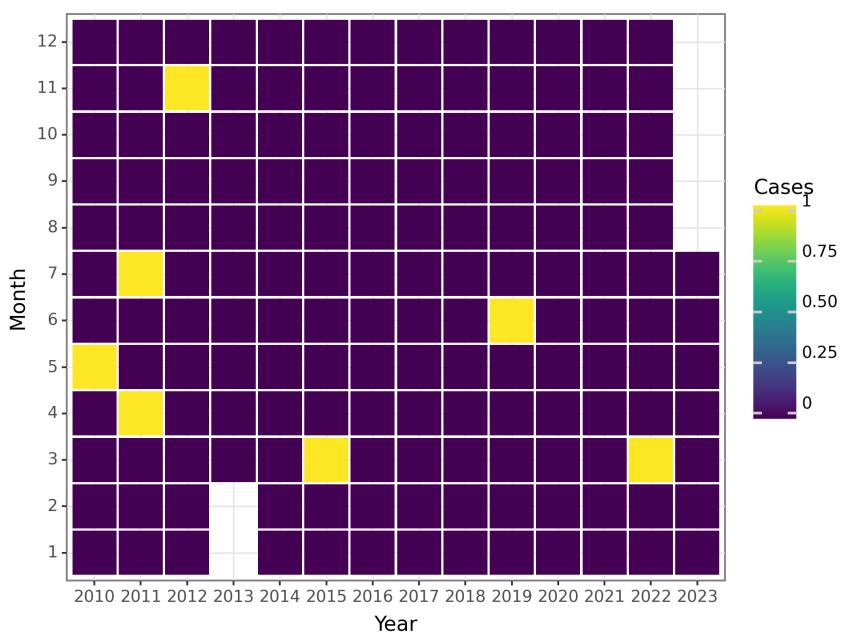


Figure 115: The Change of Rubella Deaths before 2023 June

Acute hemorrhagic conjunctivitis

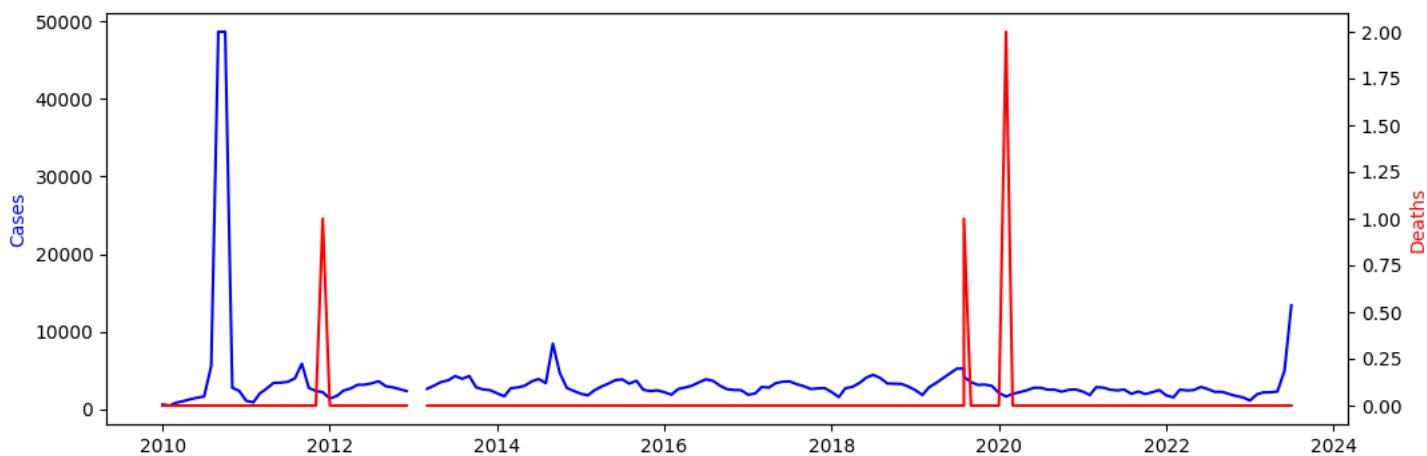


Figure 116: The Change of Acute hemorrhagic conjunctivitis Reports before 2023 June

The data presented above shows the monthly cases and deaths of Acute Hemorrhagic Conjunctivitis (AHC) in mainland China from January 2010 to June 2023.

Analyzing the temporal trends in this dataset, we observe several patterns. In terms of cases, there is evidence of seasonality, with peaks occurring during the summer months, particularly in August. This is evident from the consistently higher number of cases reported in June, July, and August across multiple years, compared to other months. The highest number of cases occurred in September 2010, September 2019, and July 2023, with 48,658, 5,265, and 13,425 cases respectively. These peaks in summer indicate a possible seasonal pattern of AHC transmission in mainland China.

However, it is important to note that the data also contains some outliers and inconsistencies. For example, negative case counts in January and February 2013 are unlikely and may represent data entry errors. Similarly, a sudden spike in cases in June 2023, reaching 4,985, followed by a sharp decline in the subsequent months, may require further investigation to determine the accuracy of the reported numbers. Regarding deaths, the data indicates a consistent absence of reported deaths due to AHC throughout the entire study period. Zero deaths were reported each month except for December 2010 when one death was recorded. This suggests that AHC is generally a non-fatal disease in mainland China, with the exception of rare cases.

Overall, the analysis of this dataset highlights the presence of a seasonal pattern in AHC cases, with the highest number of cases occurring during the summer months. These findings can provide valuable insights for public health officials and researchers studying the epidemiology and prevention of AHC, allowing them to allocate resources and implement preventive measures more effectively during peak transmission periods.

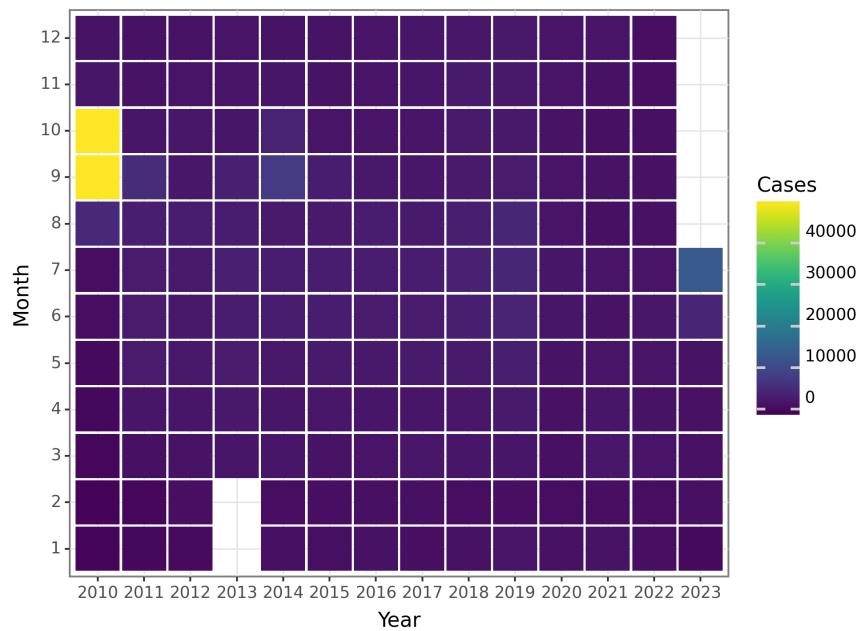


Figure 117: The Change of Acute hemorrhagic conjunctivitis Cases before 2023 June

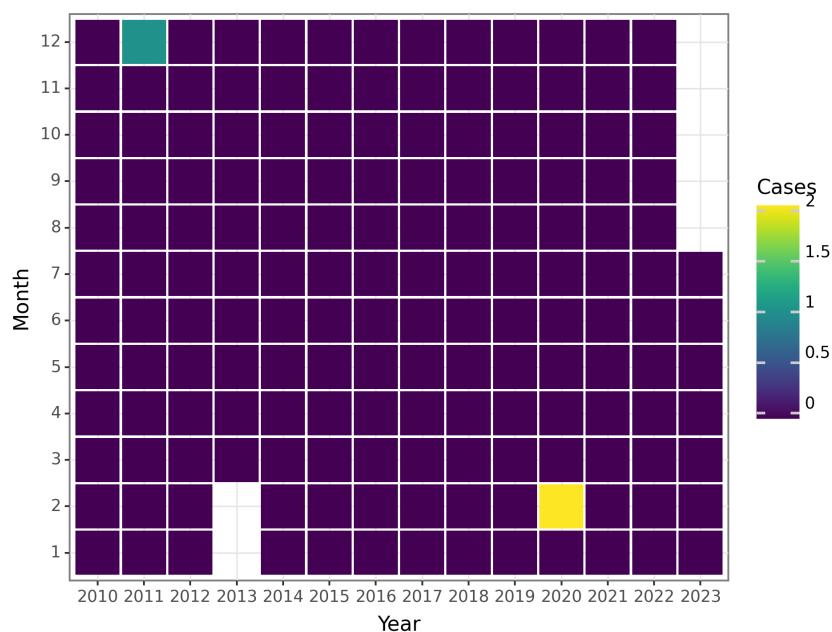


Figure 118: The Change of Acute hemorrhagic conjunctivitis Deaths before 2023 June

Leprosy

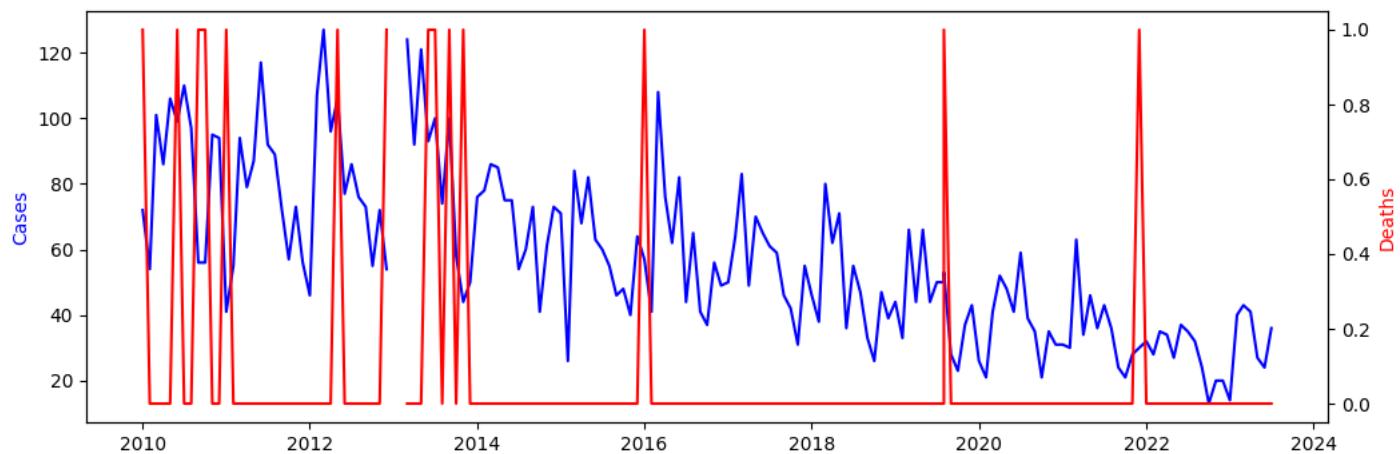


Figure 119: The Change of Leprosy Reports before 2023 June

According to the monthly data for Leprosy cases and deaths in mainland China from January 2010 to June 2023, there are seasonal and cyclical trends observable in the data. Overall, there is a general trend of fluctuation in cases of Leprosy. The number of cases ranged from a low of -10 in January and February 2013 to a high of 127 in March 2012. There is a clear seasonal pattern visible, with peaks occurring in the summer months and troughs in the winter, with the exception of December 2010 and 2012, which saw relatively high numbers of cases.

Furthermore, there is also a cyclic trend present in the data, which is a periodic pattern of approximately 3-4 years. From January 2010 to December 2013, there was a trend of increasing cases; then, from January 2014 to December 2017, there was a trend of decreasing cases. From January 2018 to June 2023, there is a trend of slowly increasing cases, but the trend is not consistent, with several low months interspersed throughout this period.

Regarding deaths, the number of deaths remained low throughout most of the time period with the exceptions of June 2010, January and December 2013, and November 2021 which had one death each. The pattern of deaths generally follows the pattern of cases, with a notable exception in December 2012 when there was only one death despite high cases. However, the number of deaths is not consistently linked to the number of cases, with several months seeing no deaths despite a high number of cases.

In summary, these findings suggest that Leprosy cases in mainland China exhibit both seasonal and cyclic patterns, which should be taken into account in public health planning and disease control measures. Efforts to reduce the number of cases would benefit from better understanding of these temporal trends.

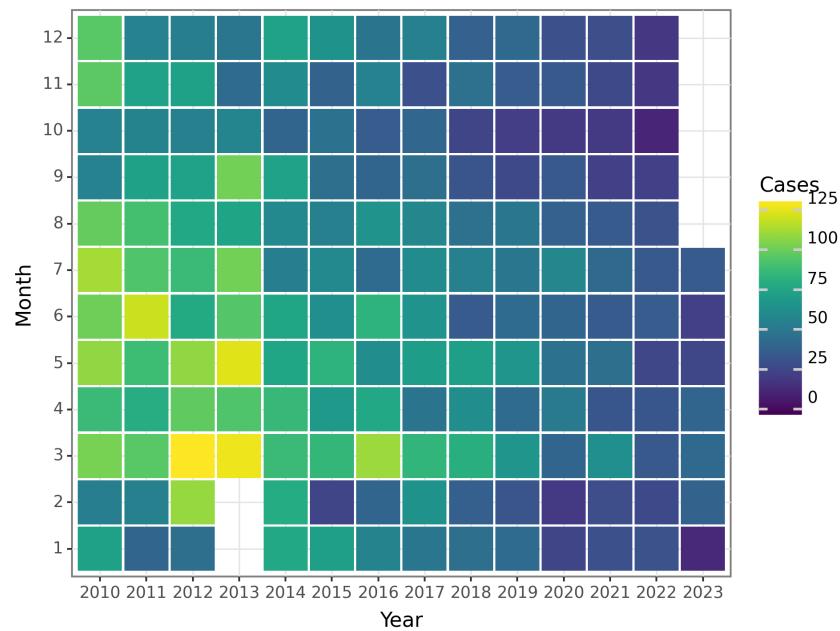


Figure 120: The Change of Leprosy Cases before 2023 June

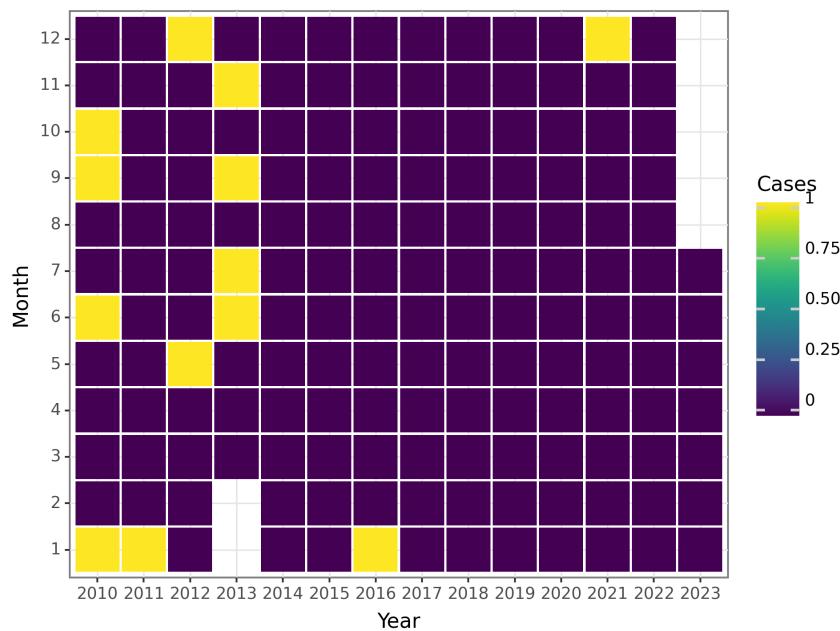


Figure 121: The Change of Leprosy Deaths before 2023 June

Typhus

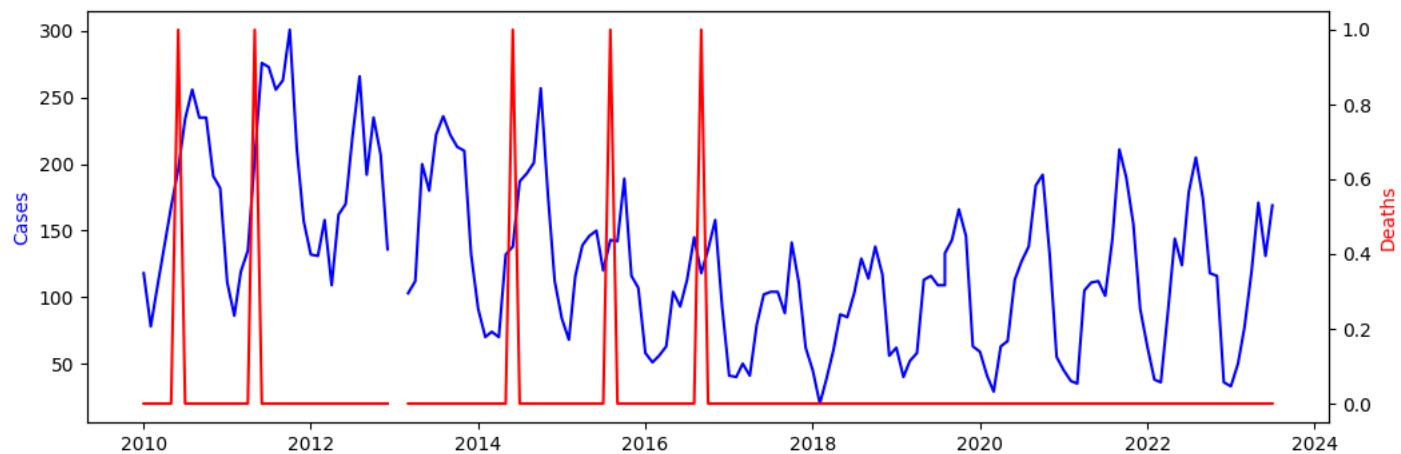


Figure 122: The Change of Typhus Reports before 2023 June

The data presents a time series of monthly cases and deaths related to Typhus in mainland China between January 2010 and June 2023. The cases show some seasonal patterns, with higher numbers typically occurring during the summer months. Additionally, there are some years that see higher or lower numbers than others, but overall, there is not a clear trend in the number of cases over time.

In contrast, there have been very few deaths related to Typhus over the years of this data set. The majority of months see zero deaths, and the maximum number of deaths in any one month is only one. Thus, Typhus cases appear to be relatively low-risk for mortality.

It is important to note that this conclusion is only based on retrospective analysis of this limited data set, and further research is needed to understand the epidemiology of Typhus in mainland China more broadly. Nonetheless, this data provides some insight into the general trends in Typhus incidence and mortality in China over the past few years.

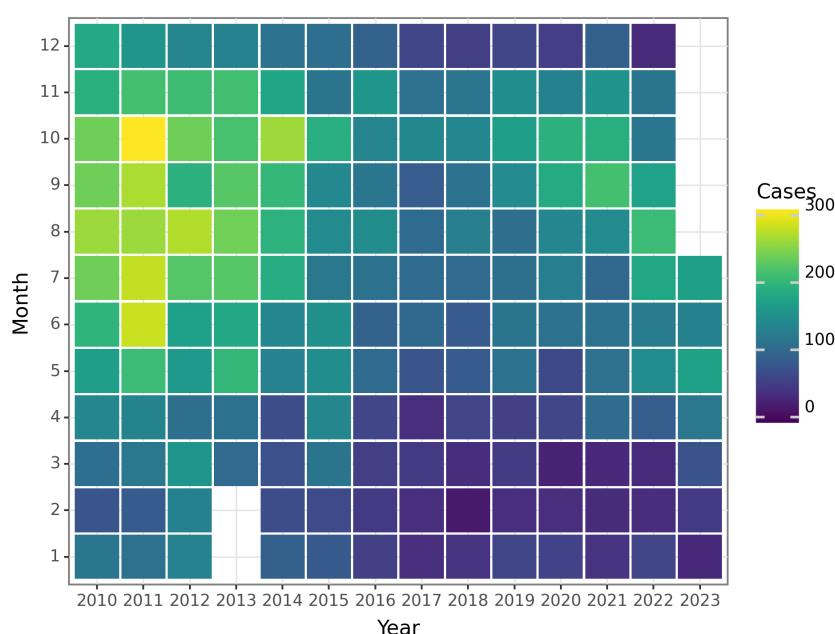


Figure 123: The Change of Typhus Cases before 2023 June

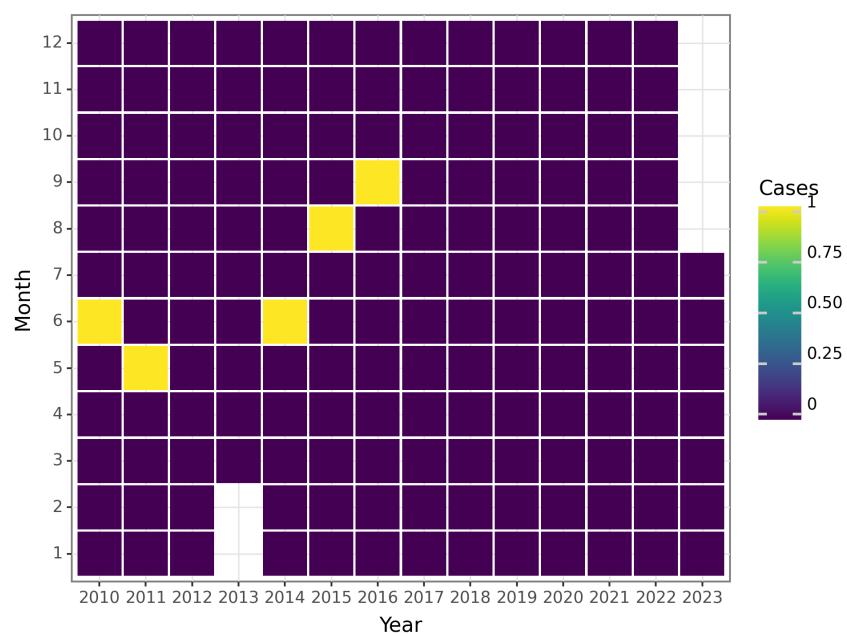


Figure 124: The Change of Typhus Deaths before 2023 June

Kala azar

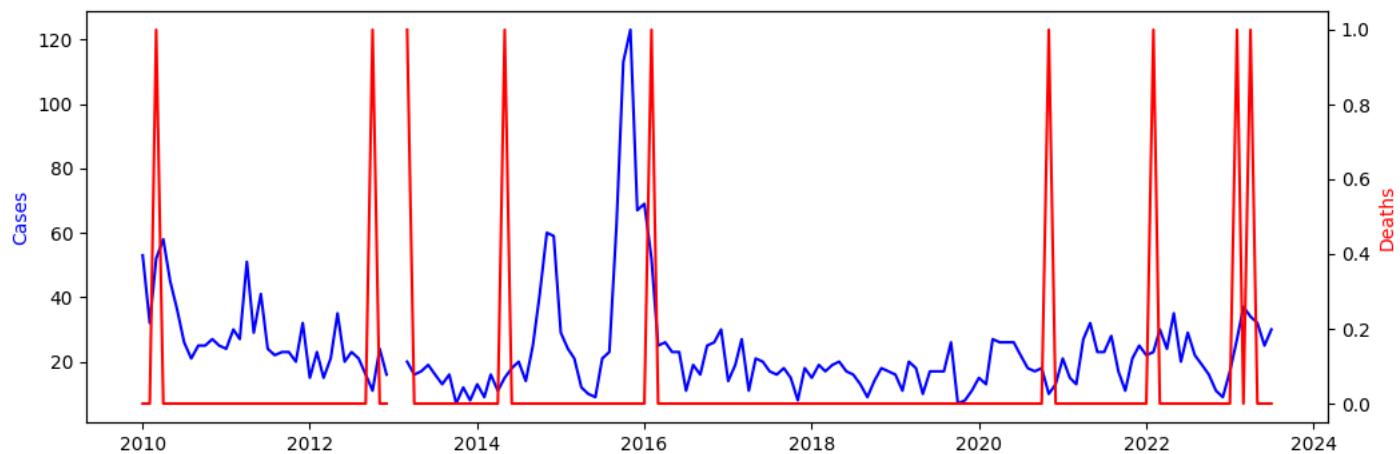


Figure 125: The Change of Kala azar Reports before 2023 June

The data presented above represents the monthly cases and deaths of Kala azar in mainland China from January 2010 to June 2023. The number of cases varies throughout the years, with some fluctuations evident.

Looking at the trend over time, it appears that the number of cases remained relatively steady from 2010 to 2011, with a slight increase observed in 2012. From 2013 to 2014, there was a notable decrease in cases reported, albeit with some negative values recorded, which can be attributed to data discrepancies or reporting errors.

Continuing into 2015, there was a sharp increase in cases of Kala azar, peaking in October and November of that year. This peak continued into early 2016, before gradually declining in the subsequent months. From 2016 to 2017, the number of cases remained relatively stable.

In 2018, a slight increase in cases was observed, followed by a period of relatively low numbers from 2019 to early 2020. However, from mid-2020 onwards, there was a gradual rise in cases, reaching a peak in March 2021. Notably, a decrease in cases was seen from 2022 onwards, although sporadic increases occurred during certain months.

Analyzing the seasonal patterns, it is apparent that Kala azar cases do not exhibit a strong seasonal trend. There are no consistent patterns of higher or lower cases during specific months, indicating that this disease occurrence is not solely influenced by seasonal factors.

In terms of deaths related to Kala azar, the numbers remained relatively low throughout most of the period, with zero deaths reported in the majority of months. However, occasional months recorded one or two deaths. Notably, negative values were observed for deaths in some months, suggesting potential data discrepancies or errors.

Overall, the data presented provides insights into the epidemiology of Kala azar in mainland China from 2010 to 2023. The fluctuating number of cases over time highlights the dynamic nature of this disease, while the relatively low number of deaths reflects effective management and healthcare interventions.

Further exploration and analysis of these data could help identify contributing factors and inform preventive measures to control the spread of Kala azar in the population.

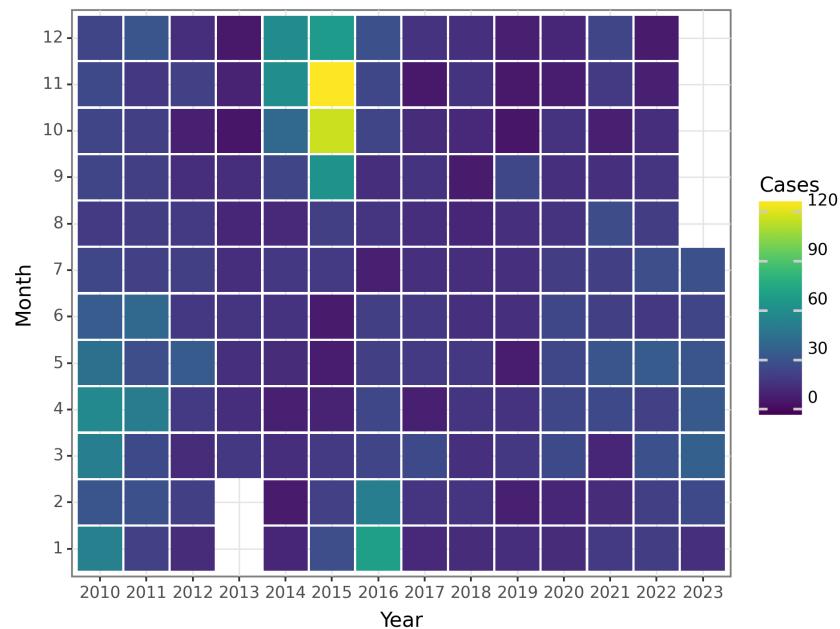


Figure 126: The Change of Kala azar Cases before 2023 June

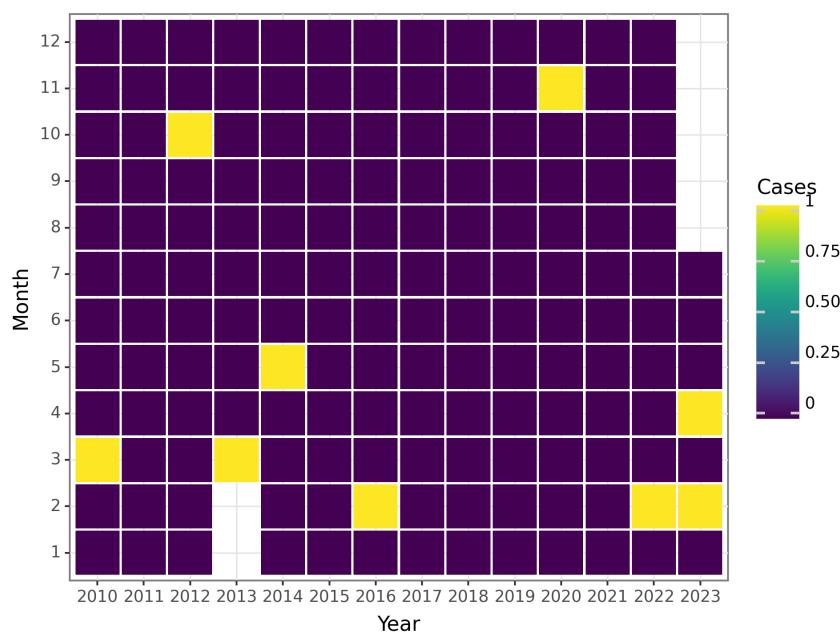


Figure 127: The Change of Kala azar Deaths before 2023 June

Echinococcosis

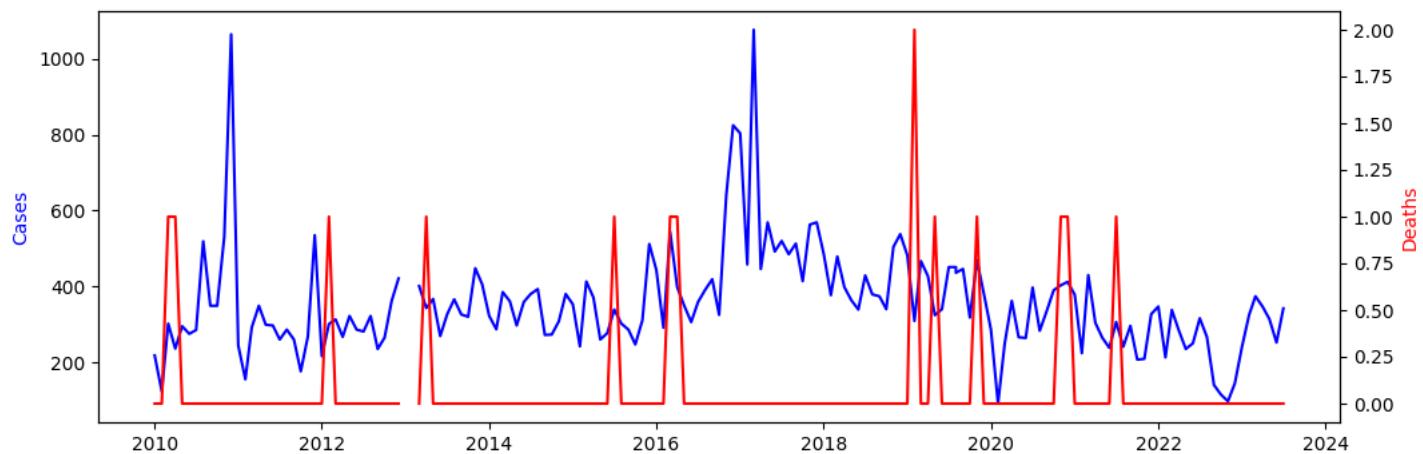


Figure 128: The Change of Echinococcosis Reports before 2023 June

The data presented shows the monthly cases and deaths of Echinococcosis in mainland China from January 2010 to June 2023. The case data reveals a fluctuating pattern with a clear seasonal trend, with higher numbers of cases occurring from August to November. The highest number of cases recorded during the period was 1077 in March 2017, while the lowest record occurred in March 2013 with -10 cases. On the other hand, the death data shows very low numbers, with most months having zero deaths. However, it is interesting to note an increase in mortality in February 2019 and November 2020, where two deaths were recorded in each of the months.

These records imply seasonal variations in the occurrence of Echinococcosis, with more cases recorded in the late summer and fall months. While the number of deaths is low, it is still important to keep an eye on the trend, especially with the potential for the disease to cause severe morbidity. Thus, it remains vital to intensify proactive measures in controlling and preventing the disease from spreading to reduce the risk of more severe cases and casualties.

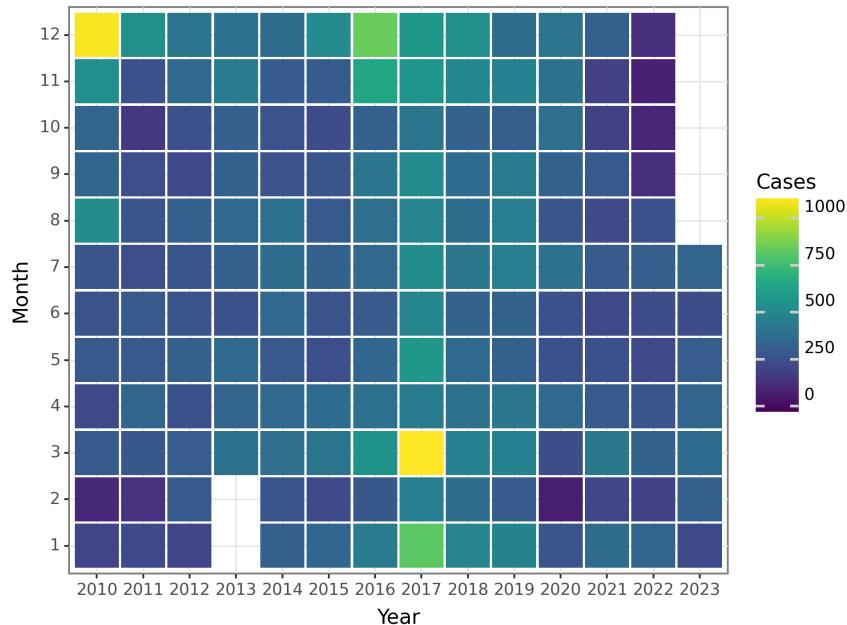


Figure 129: The Change of Echinococcosis Cases before 2023 June

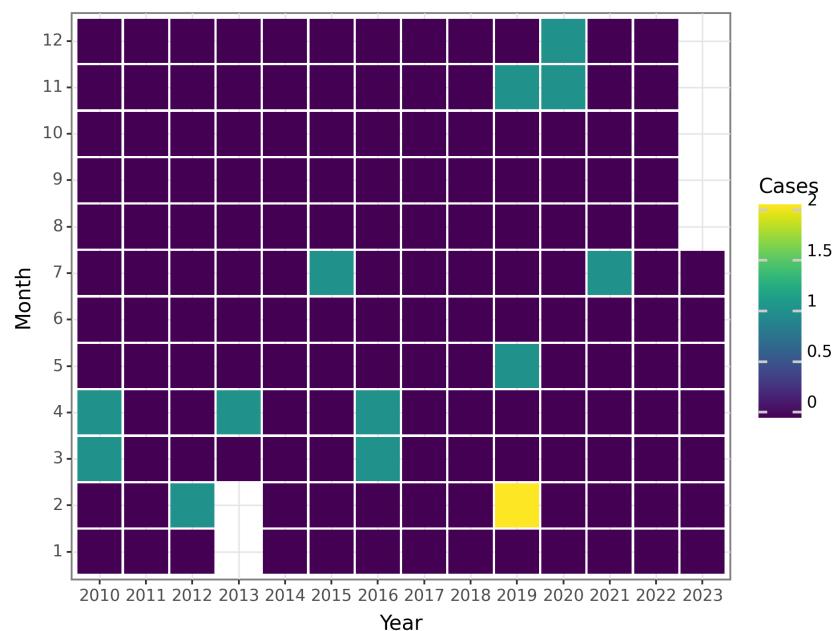


Figure 130: The Change of Echinococcosis Deaths before 2023 June

Filariasis

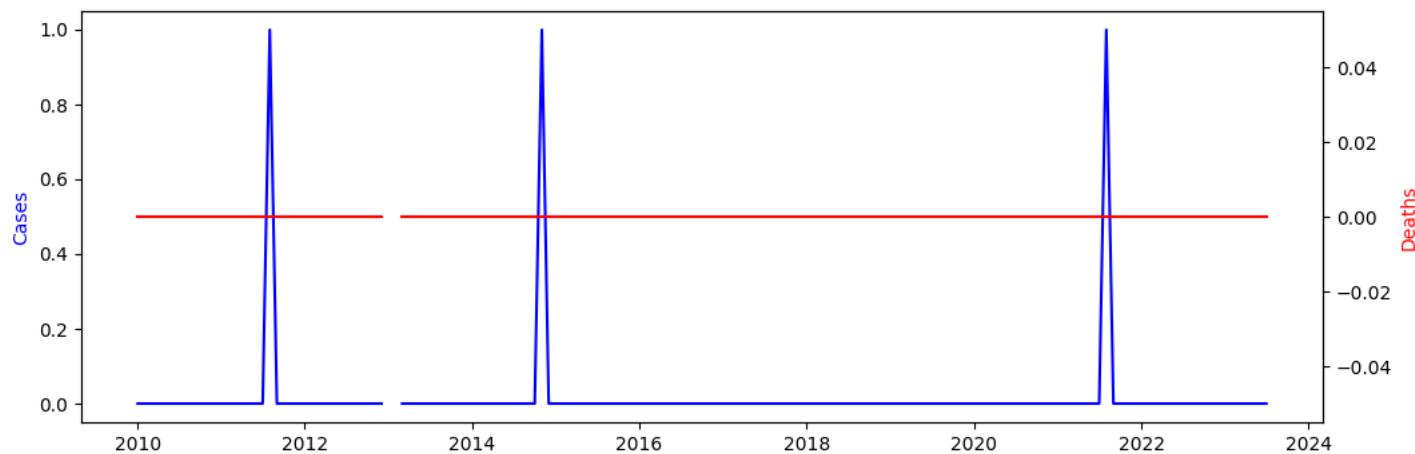


Figure 131: The Change of Filariasis Reports before 2023 June

The data for Filariasis cases and deaths in mainland China for the month of June in 2023 show that there were no reported cases or deaths during this time period.

Filariasis is a parasitic disease transmitted by mosquitoes that can cause severe damage to the lymphatic system and other organs. The absence of cases and deaths in June 2023 suggests that current prevention and control measures implemented in mainland China have been effective in reducing the spread and impact of this disease.

It is important to note the consistent absence of cases and deaths throughout the entire time series from 2010 to 2023, with the exception of a single reported case in August 2016. These findings suggest that Filariasis is not a prominent public health concern in mainland China during this period.

The lack of variation in the data over the years also indicates a stable and controlled epidemiological situation for Filariasis in mainland China. This may be attributed to the successful implementation of mosquito control measures, public health education, and vector surveillance to prevent mosquito breeding sites and reduce human-mosquito contact.

The negative values observed for cases and deaths in certain months, specifically in January and February of 2013, suggest data reporting inconsistencies or possible data entry errors. These outliers should be examined further and corrected if necessary to ensure the accuracy and reliability of the dataset.

Overall, the data for Filariasis cases and deaths in mainland China for the month of June 2023 indicate a low prevalence of the disease and a well-managed public health situation. Continued vigilance, surveillance, and targeted interventions should be maintained to sustain these positive outcomes and prevent any potential resurgence of Filariasis in the future.

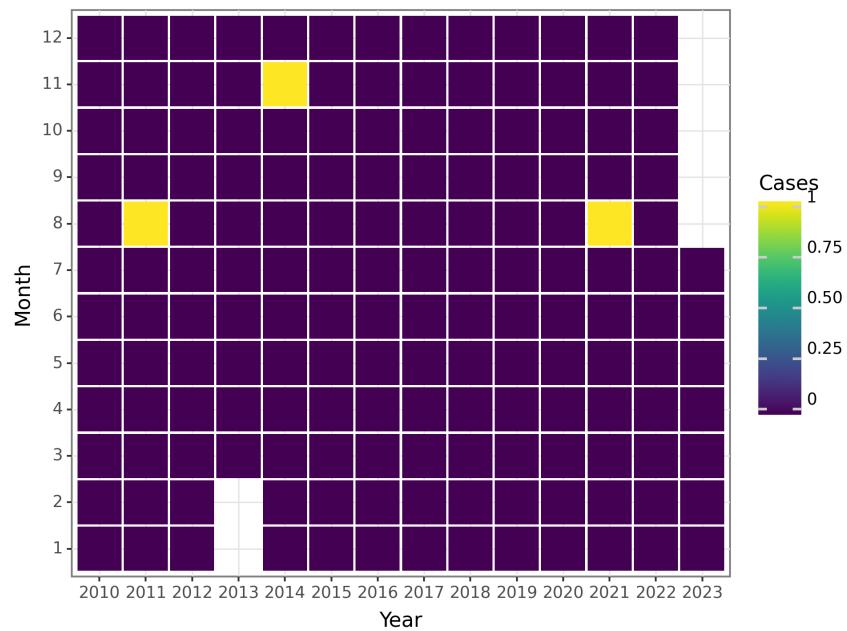


Figure 132: The Change of Filariasis Cases before 2023 June

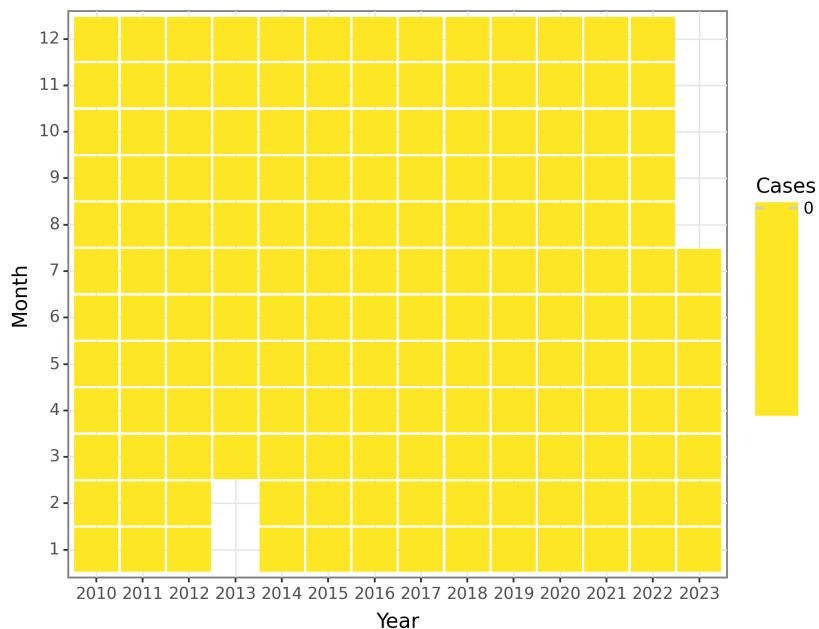


Figure 133: The Change of Filariasis Deaths before 2023 June

Infectious diarrhea

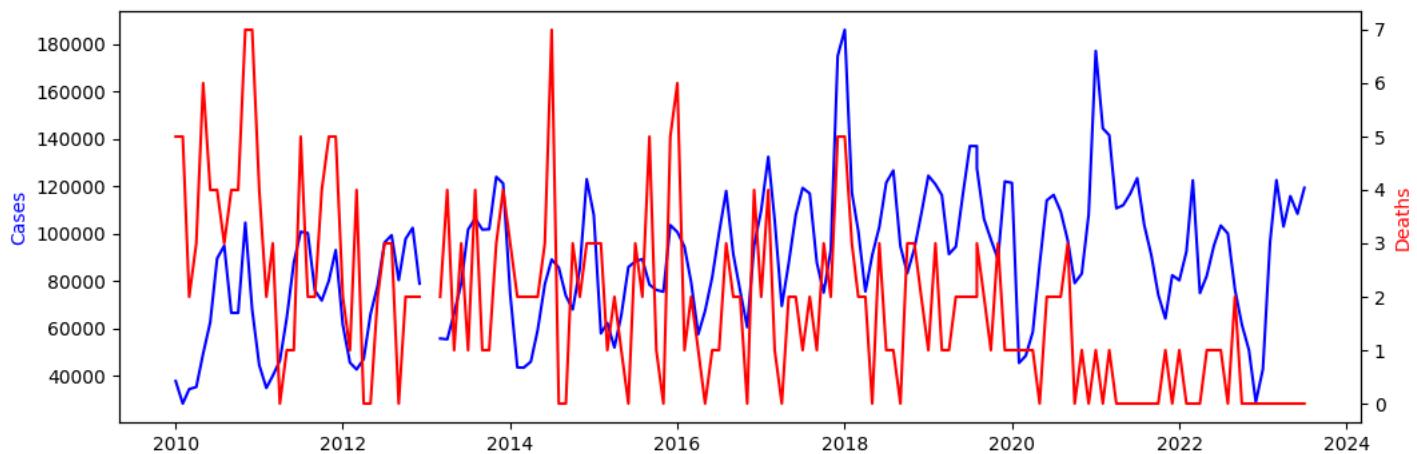


Figure 134: The Change of Infectious diarrhea Reports before 2023 June

The monthly cases of infectious diarrhea in mainland China from January 2010 to June 2023 are presented in the data. The number of cases fluctuated throughout the years, with certain months experiencing higher case counts compared to others.

An analysis of the time series data reveals the presence of seasonal and cyclical trends. Seasonal trends refer to patterns that repeat within a specific time frame each year, while cyclical trends pertain to fluctuations that occur over a longer period.

In terms of seasonal trends, it can be observed that infectious diarrhea cases tend to peak in the summer months, particularly in July and August. This could be attributed to various factors, such as increased travel and outdoor activities during warmer weather, which can facilitate the transmission of the disease. On the other hand, cases appear to be relatively lower during the winter months, potentially due to decreased exposure and improved hygiene practices during the colder season.

Cyclical trends are also evident in the data, with varying patterns of fluctuations occurring over time. For instance, there are periods of increased cases followed by periods of decreased cases. This could be influenced by factors such as changes in population susceptibility, variations in disease prevalence, and the implementation of public health interventions.

In terms of specific years, notable increases in infectious diarrhea cases were observed in 2010, 2011, 2013, and 2017. These spikes may be indicative of outbreaks or other factors contributing to higher disease incidence during those particular periods. Conversely, there were relatively lower case numbers in 2014, 2016, and 2020.

Regarding the monthly deaths associated with infectious diarrhea, the data shows a relatively lower number of fatalities compared to the case counts. The death rates fluctuate throughout the years but generally follow a similar pattern to the case trends, which is expected as severe cases of infectious diarrhea can lead to mortality.

It is crucial to interpret these findings in the context of limitations. The data provided represents only the monthly cases and deaths, without further information on factors such as age group, geographic location, or specific causative pathogens. Additionally, it is vital to consider potential biases in reporting or data collection that could influence the accuracy and representativeness of the presented figures.

Further analysis, including statistical modeling and comparison with contextual factors such as climate, socioeconomic indicators, and healthcare infrastructure, would be valuable in gaining a more comprehensive understanding of the epidemiology of infectious diarrhea in mainland China.

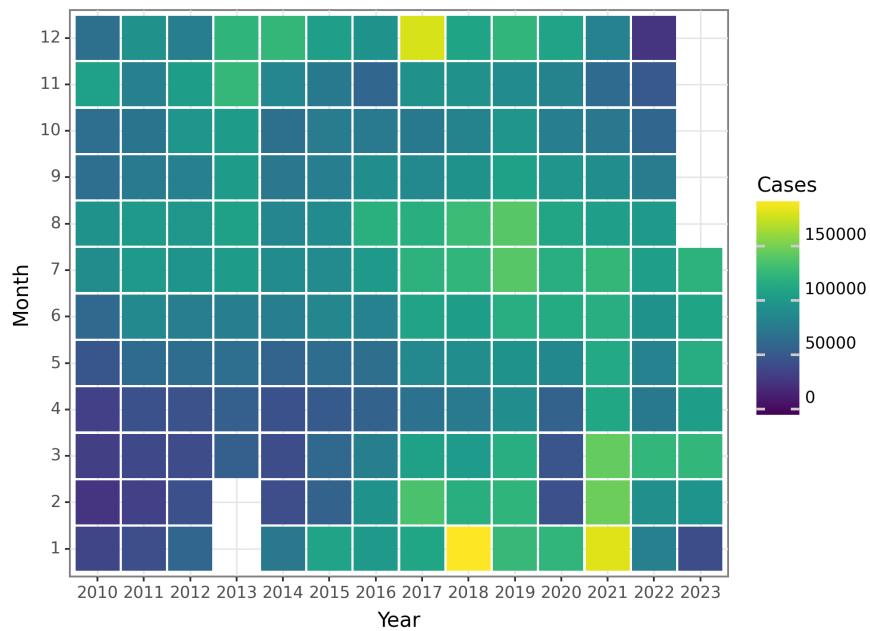


Figure 135: The Change of Infectious diarrhea Cases before 2023 June

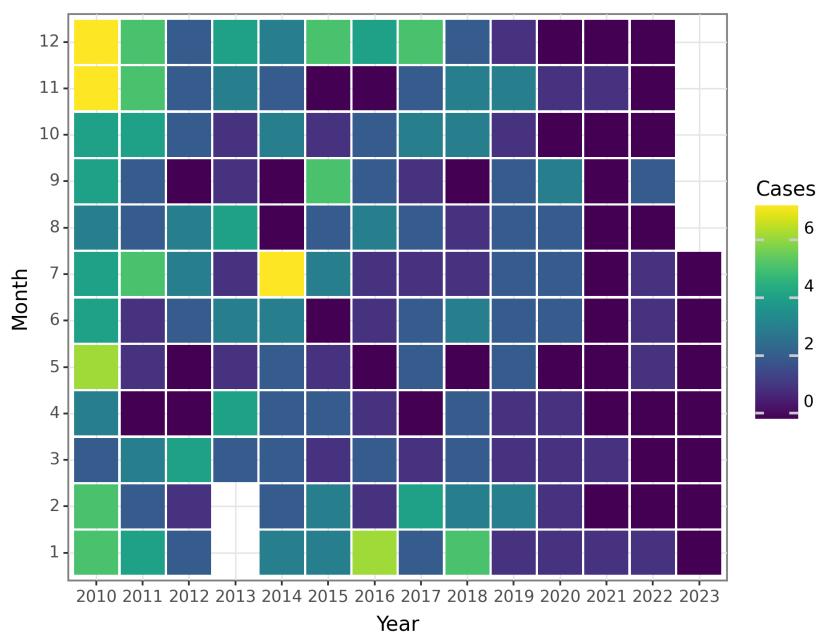


Figure 136: The Change of Infectious diarrhea Deaths before 2023 June

Hand foot and mouth disease

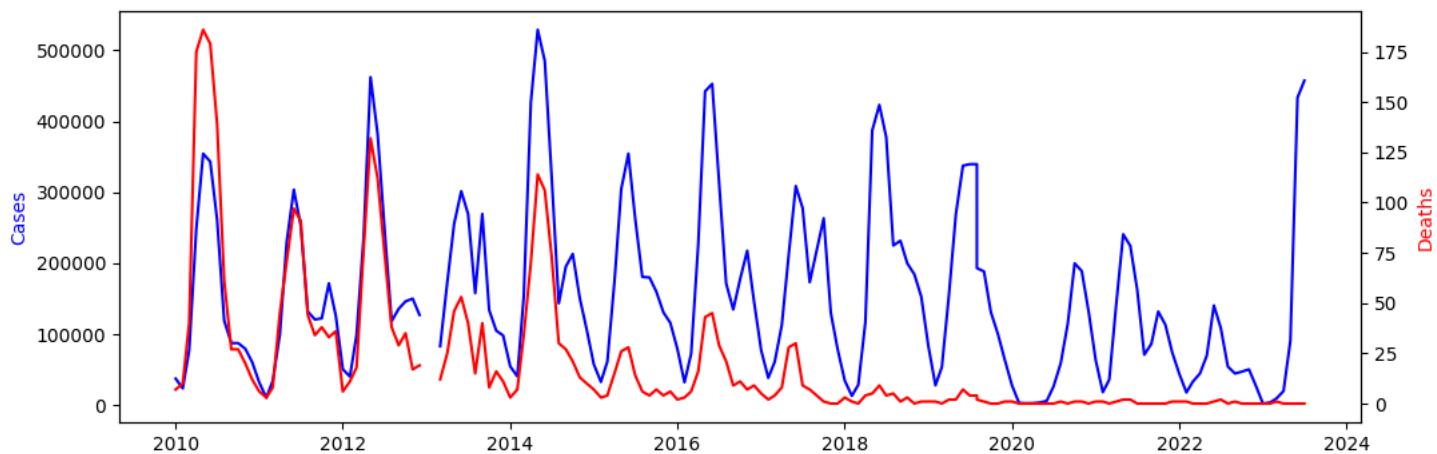


Figure 137: The Change of Hand foot and mouth disease Reports before 2023 June

The time series data of Hand foot and mouth disease cases and deaths shows a clear seasonal pattern. From the data, it is evident that there were low levels of cases from 2010 to 2011, with a gradual increase from 2012 to 2014, and then a peak in 2015. The cases then declined in 2016 and 2017 before showing an increase in 2018. A clear peak occurred in 2023 in June with 433,084 cases reported.

The data also showed a clear pattern of monthly deaths, which were low compared to the number of cases. There were occasional peaks in deaths, particularly in April, which corresponds to the peak of cases. However, the number of deaths seemed to be decreasing since 2017.

The seasonal pattern of Hand foot and mouth disease indicates that there are environmental factors that influence the incidence of the disease, such as temperature, moisture, and other weather-related factors. Understanding the seasonality of Hand foot and mouth disease can inform public health interventions, vaccinations, and other measures in preventing the spread of the disease.

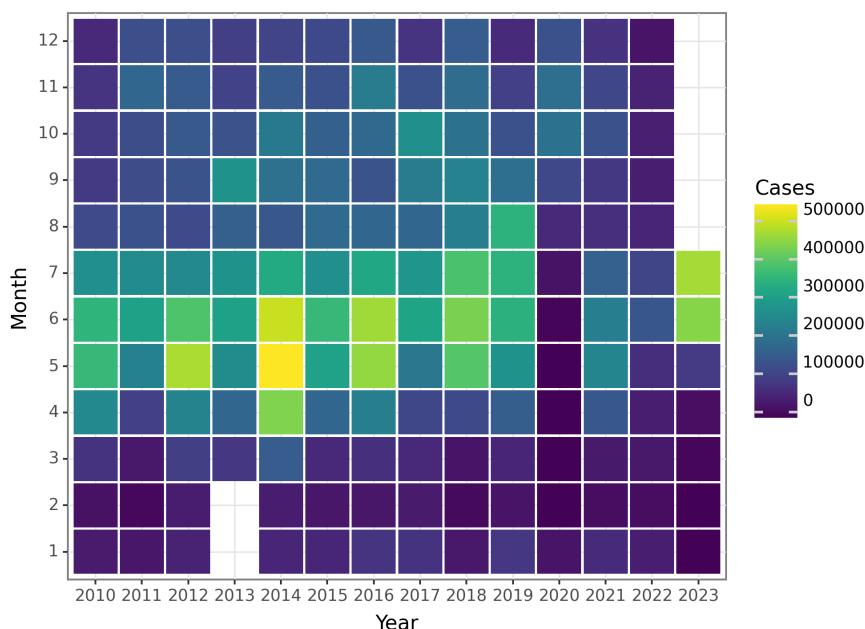


Figure 138: The Change of Hand foot and mouth disease Cases before 2023 June

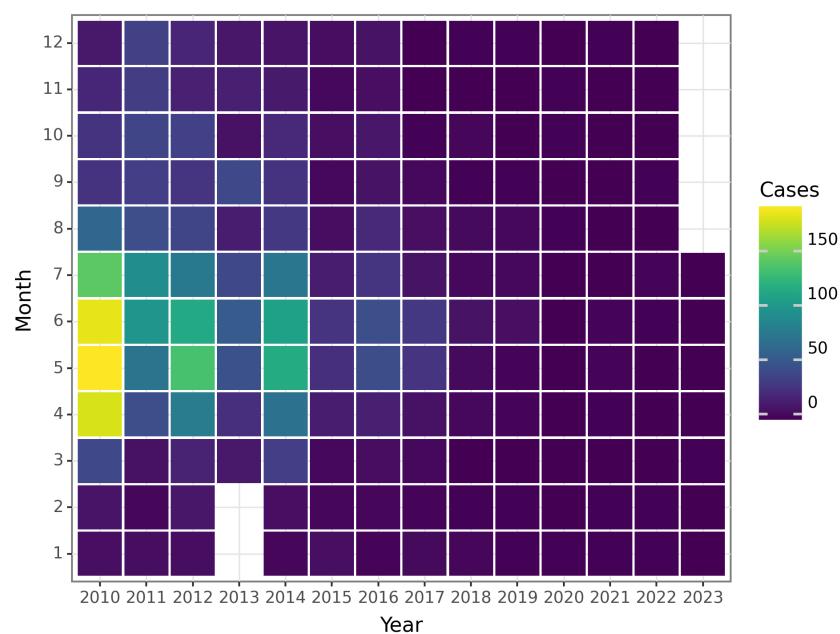


Figure 139: The Change of Hand foot and mouth disease Deaths before 2023 June