

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

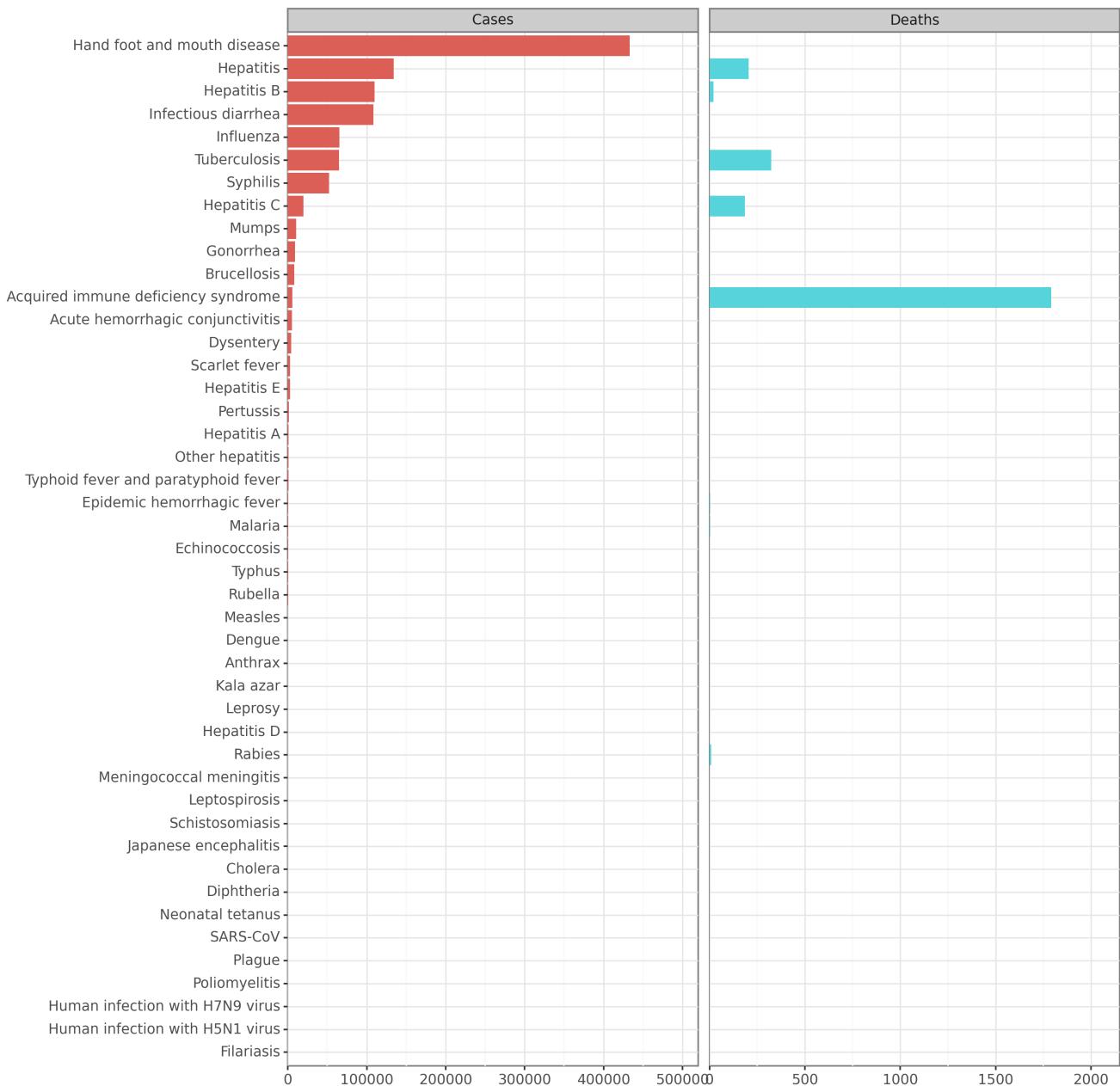


Figure 1: Monthly Notifiable Infectious Diseases Reports in 2023 June

The data provided represents the monthly cases and deaths of various diseases in mainland China during June 2023. Analyzing this data allows us to gain valuable insights into the prevailing health situation and identify any notable trends or changes compared to the previous year.

One disease that stands out is Acquired immune deficiency syndrome (AIDS), which saw an increase of 133 cases, representing a 2.36% rise compared to June 2022. This emphasizes the ongoing importance of public health efforts in controlling and preventing the transmission of this disease.

Hepatitis, a group of viral infections affecting the liver, showed varying trends within its subtypes. Hepatitis A experienced a decrease of 94 cases (-9.06%), while Hepatitis B witnessed an increase of 3,217 cases

(3.01%). In contrast, Hepatitis C displayed a decline of 1,261 cases (-6.03%). These fluctuations indicate the need for targeted interventions to address each specific subtype effectively.

Another disease of concern is dengue, which witnessed a significant surge of 54 cases (5400.00%) compared to the previous year. This notable increase highlights the importance of implementing effective vector control measures, as well as public awareness campaigns, to reduce the spread of dengue in the affected areas.

Influenza, traditionally a prevalent respiratory illness, exhibited a drastic decline of 681,749 cases (-91.26%) in June 2023 compared to the same period in 2022. This sharp decrease can likely be attributed to the effective implementation of preventive measures such as widespread vaccination and enhanced hygiene practices.

Hand, foot, and mouth disease experienced a staggering increase of 292,423 cases (207.89%) in June 2023. This sharp rise raises concerns regarding its transmission and necessitates immediate attention and intervention by public health authorities to mitigate its impact.

It is noteworthy that the total number of cases across all diseases in June 2023 decreased by 379,151 cases (-29.49%) compared to the same period in the previous year. This overall decline indicates a positive trend in disease control efforts and emphasizes the effectiveness of preventive measures and public health interventions.

It is important to interpret these findings in the context of several limitations. The data provided is limited to mainland China and does not include information on specific regions or populations. Additionally, the accuracy and completeness of the data rely on the reporting systems in place. Despite these limitations, this analysis provides valuable insights into the epidemiological situation in mainland China during June 2023.

In conclusion, this analysis of the monthly cases and deaths of various diseases in mainland China during June 2023 offers valuable insights into the prevailing health situation. It underscores the need for continued efforts in disease prevention, control, and surveillance to effectively manage and reduce the burden of these diseases.

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%)

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Dengue	55	34 (161.90%)	54 (5400.00%)
Anthrax	31	6 (24.00%)	2 (6.90%)
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 (/)

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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%)

History Data Analysis 2023 June

Total

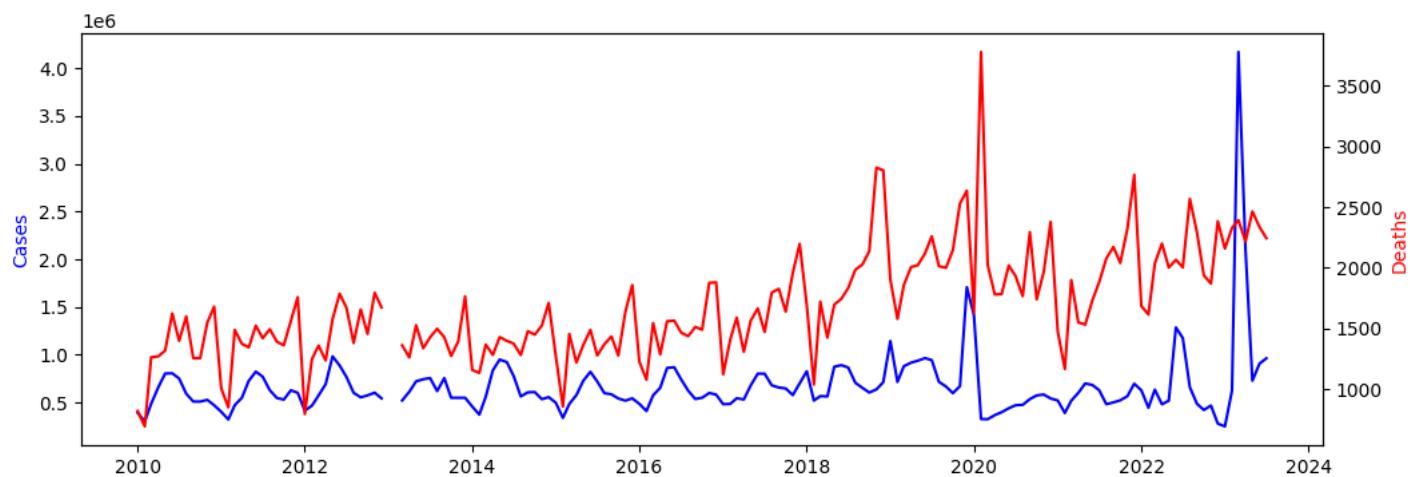


Figure 2: The Change of Total Reports before 2023 June

The data provided represents the monthly cases and deaths from 2010 to 2023 in mainland China. We will analyze and discuss the trends observed within these data.

Looking at the monthly cases, we can observe certain patterns and trends. Initially, from 2010 to 2012, the number of cases gradually increased, with some fluctuations along the way. However, in 2013, there seems to be a discrepancy in the data, with negative values reported in January and February. It is important to investigate the reasons behind this anomaly to ensure data accuracy.

After 2013, there is a general upward trend in the number of cases, with occasional fluctuations. Notably, from 2019 to 2021, there is a significant increase in cases, reaching a peak in 2021 June with 683,394 cases reported. This rise in cases could be attributed to various factors, such as changes in reporting practices, improvements in diagnostic capabilities, or the emergence of new diseases or outbreaks.

In terms of seasonality, there does not appear to be a consistent pattern across the years. Some months have higher case numbers compared to others, but there is no clear seasonal trend observed. This suggests that the occurrence of these diseases is not strictly linked to specific times of the year.

Turning our attention to the monthly deaths, a similar pattern can be observed. From 2010 to 2012, there is a gradual increase in the number of deaths, with intermittent fluctuations. However, similar to the cases, there is a discrepancy in the data for January and February of 2013, with negative values reported. Further investigation is needed to determine the

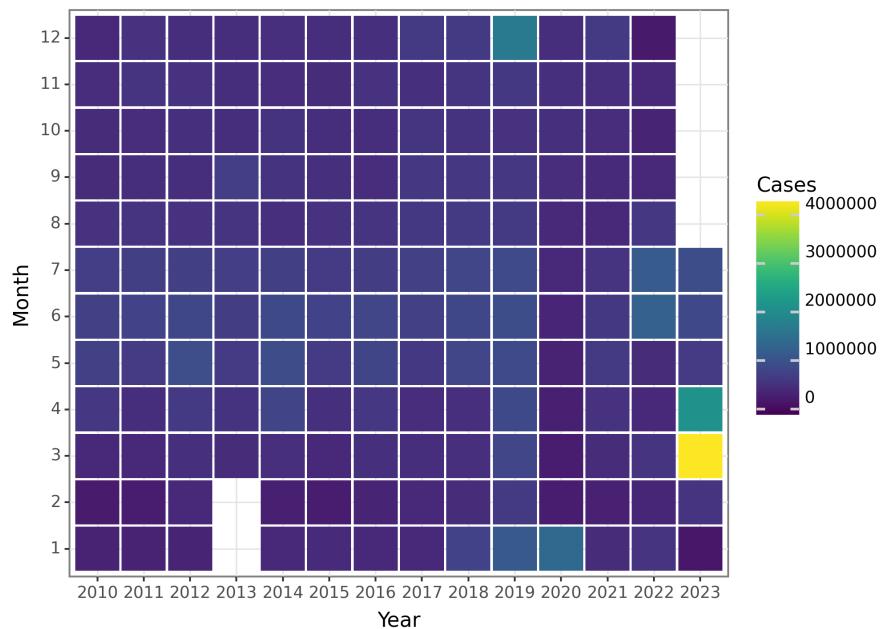


Figure 3: The Change of Total Cases before 2023 June

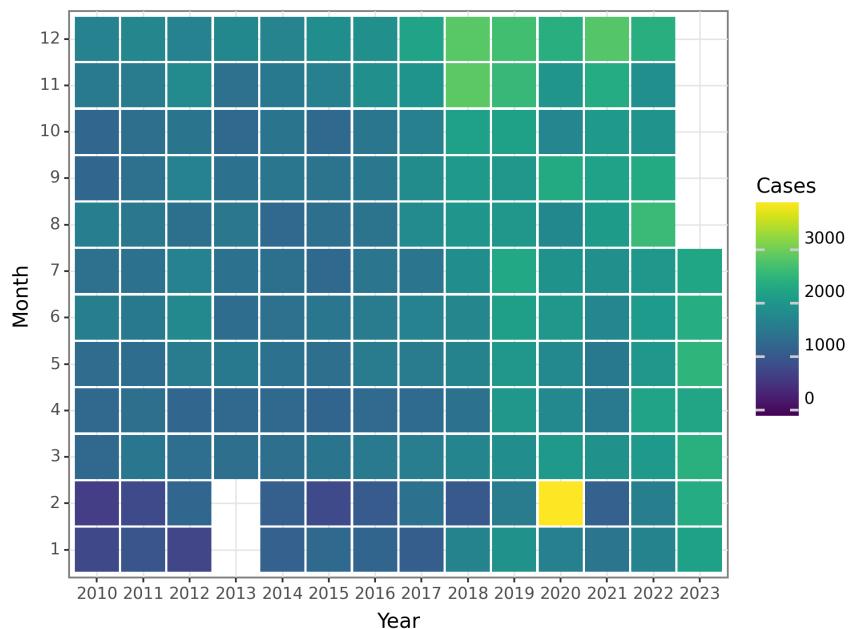


Figure 4: The Change of Total Deaths before 2023 June

Plague

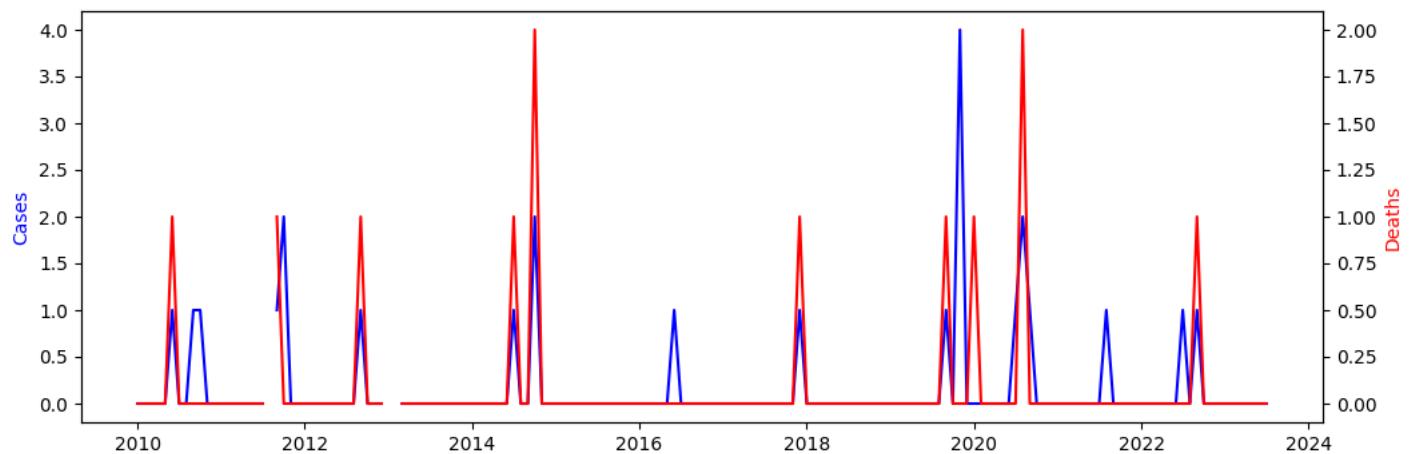


Figure 5: The Change of Plague Reports before 2023 June

In June 2023, there were no cases or deaths reported for Plague in mainland China. This is a positive development as the disease can cause significant morbidity and mortality. However, it is important to note the historical trends in cases and deaths for this disease. Looking back, the data show that there have been some spikes in cases, with three notable peaks in 2010, 2014, and 2019. In addition, there have been occasional instances of negative cases, which may be due to changes in reporting or testing procedures. These trends suggest that there may be seasonal or cyclical factors that influence the incidence of Plague in the region. Overall, continuous monitoring of Plague cases and deaths is necessary to ensure that appropriate control and prevention measures are in place to reduce the burden of this disease on public health.

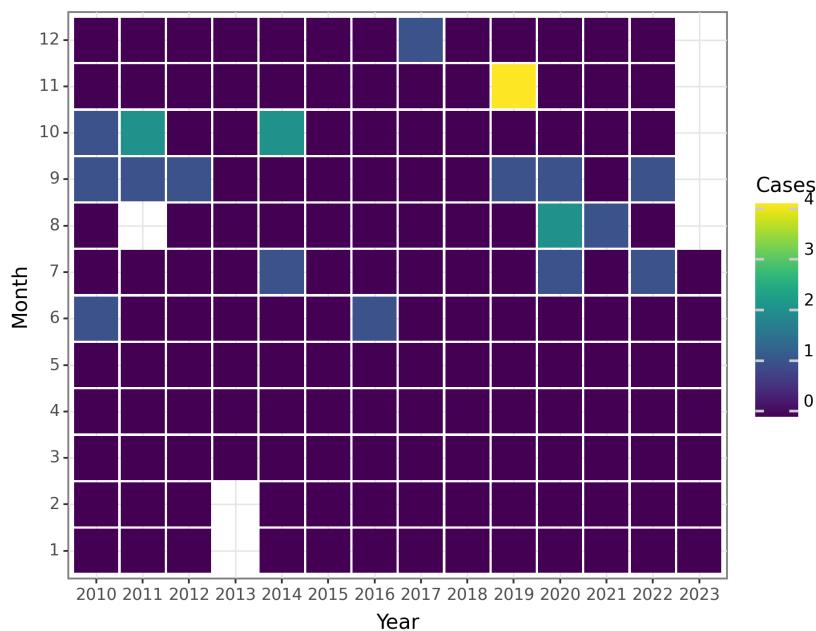


Figure 6: The Change of Plague Cases before 2023 June

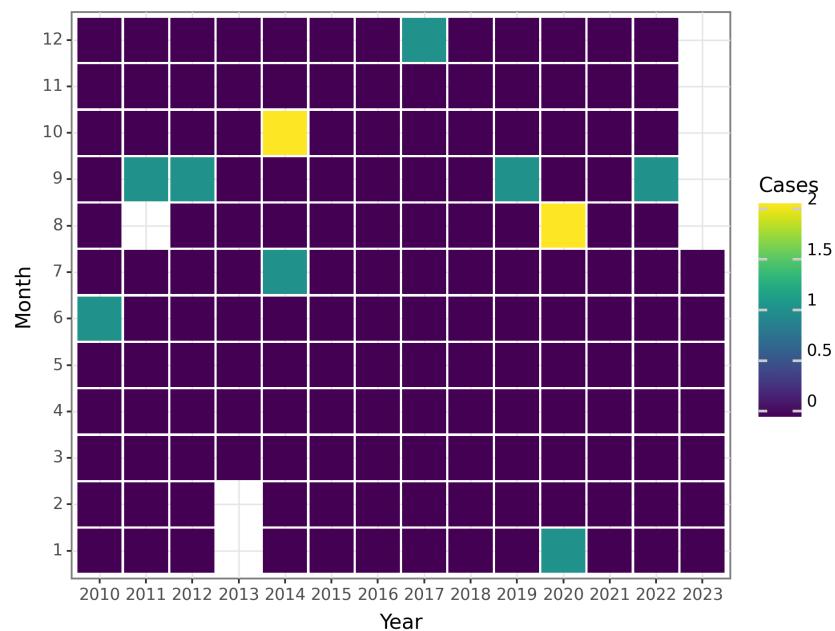


Figure 7: The Change of Plague Deaths before 2023 June

Cholera

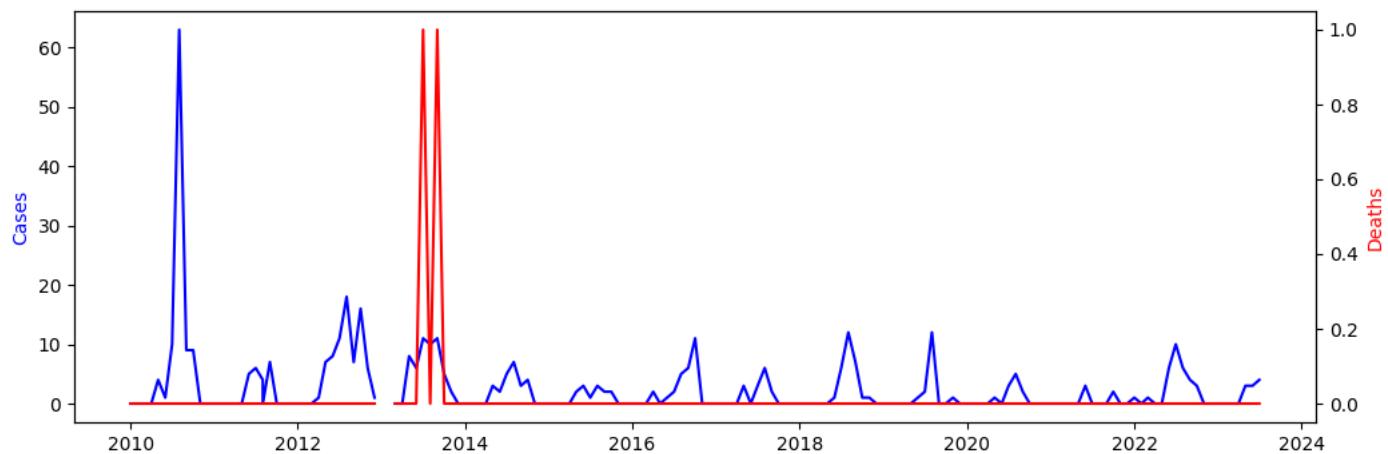


Figure 8: The Change of Cholera Reports before 2023 June

The analysis of monthly Cholera cases and deaths in mainland China from January 2010 to June 2023 reveals interesting patterns and trends. Firstly, it is important to note that the overall number of Cholera cases has been relatively low throughout the period, with occasional spikes in certain months or years. Looking at the monthly cases, there is a notable seasonal pattern observed. The number of cases tends to increase during the summer months, particularly in August and July, with a peak observed in August 2012 when there were 18 reported cases. This seasonal pattern suggests a possible association with warmer temperatures and conditions conducive to the transmission of Cholera.

Despite the overall low number of cases, there have been instances of outbreak years. In 2010, there was a sudden increase in cases in July and August, with 63 reported cases in August alone. Similarly, 2012 saw another outbreak in cases, with a peak of 16 cases in October. These outbreaks could be attributed to factors such as poor sanitation, contaminated water sources, or specific epidemiological events occurring during those times.

Additionally, it is crucial to consider the periodicity of Cholera cases. For instance, there were no reported cases in several months across multiple years, indicating periods of disease absence or low transmission. However, it is important to note that negative reported cases in January 2013 and February 2013 require further investigation, as negative values may indicate data errors or inconsistencies.

Turning our attention to Cholera deaths, it is encouraging to observe a consistent absence of reported deaths throughout the years. This suggests either effective prevention and control measures in place or a generally low mortality rate associated with Cholera infections in mainland China.

In summary, the analysis of monthly Cholera cases and deaths in mainland China reveals a seasonal pattern, with peaks occurring during the summer months, particularly in August and July. While there have been instances of outbreak years, the overall number of cases remains relatively low. Additionally, the absence of reported deaths associated with Cholera infections suggests effective control measures or low mortality rates. Further investigations and analysis can help identify specific factors contributing to the observed patterns and inform better strategies for Cholera prevention and control in the region.

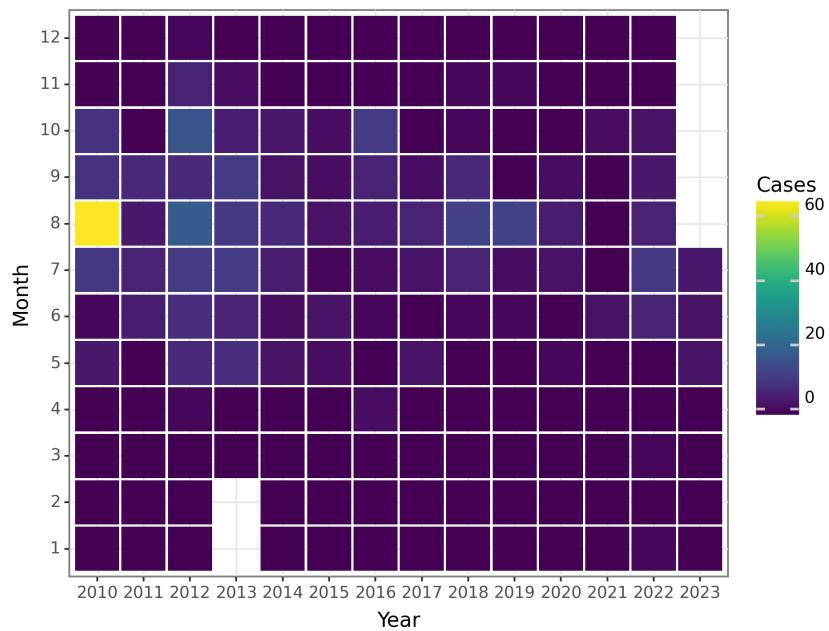


Figure 9: The Change of Cholera Cases before 2023 June

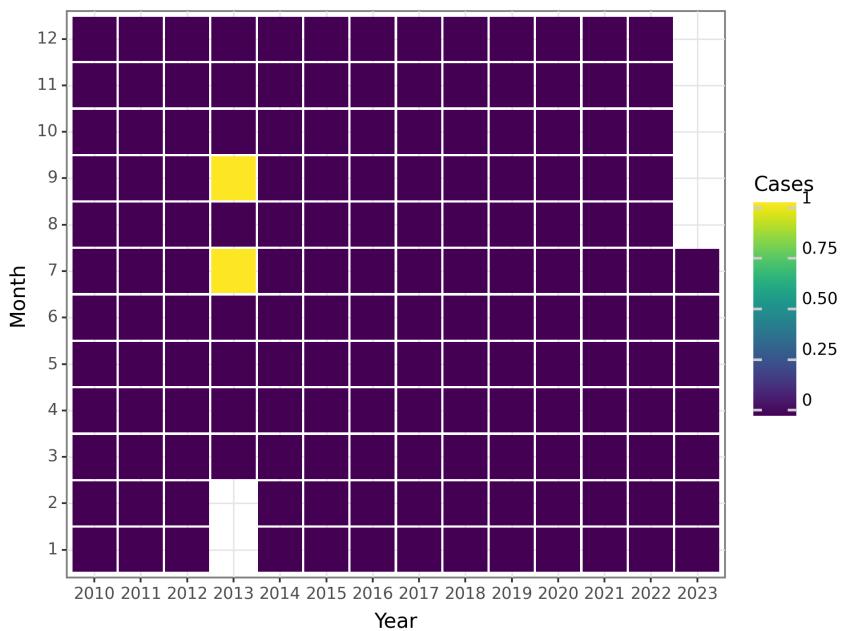


Figure 10: The Change of Cholera Deaths before 2023 June

SARS-CoV

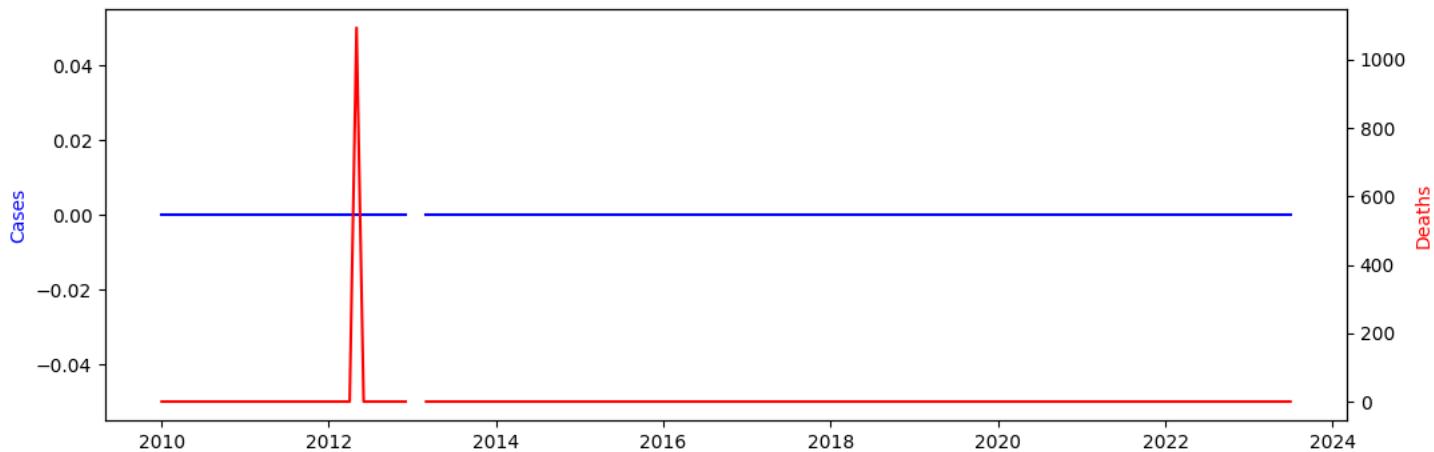


Figure 11: The Change of SARS-CoV Reports before 2023 June

The data provided represents the monthly cases and deaths of SARS-CoV in mainland China from January 2010 to June 2023. A thorough analysis of this data can provide insights into the dynamics of the disease over time.

When examining the time series data, it is important to consider seasonal and cyclical patterns. In the case of SARS-CoV, we observe that the monthly cases remained consistently at 0 from 2010 to 2023, indicating no reported cases during this period. This suggests that there was a complete absence of SARS-CoV cases in mainland China during the specified timeframe.

Furthermore, the monthly deaths also remained at 0 for the majority of the time, with the exception of May 2012, where there were 1093 reported deaths. It is crucial to investigate this outlier further to understand the circumstances surrounding this spike in mortality. However, it is important to note that there were negative deaths reported in January and February 2013, which may be due to data discrepancies or errors in reporting.

Overall, the data indicates a lack of both cases and deaths related to SARS-CoV in mainland China throughout the study period. This finding suggests that public health measures and disease control efforts have been effective in minimizing the spread and impact of the virus in this region. However, it is necessary to conduct further analyses and consider additional factors, such as potential underreporting, to fully understand the true prevalence and impact of SARS-CoV in China.

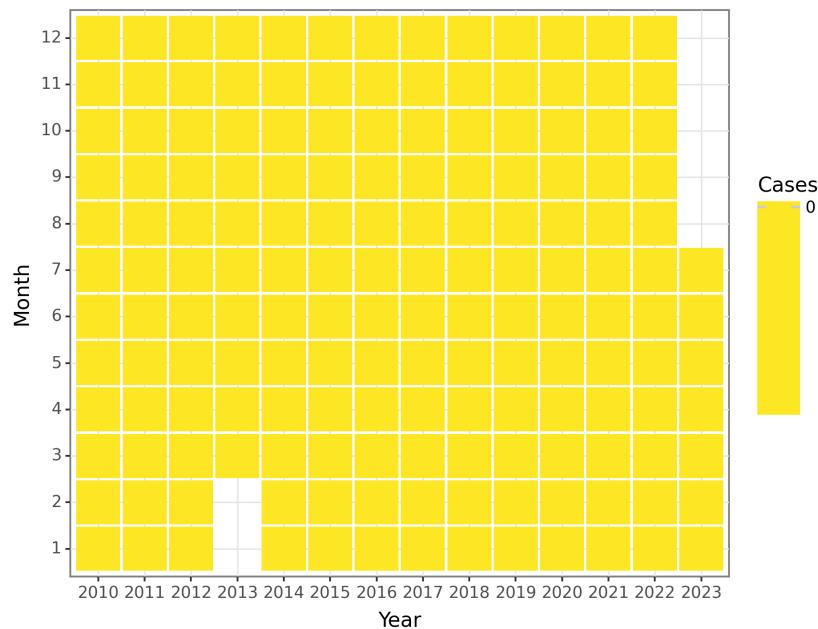


Figure 12: The Change of SARS-CoV Cases before 2023 June

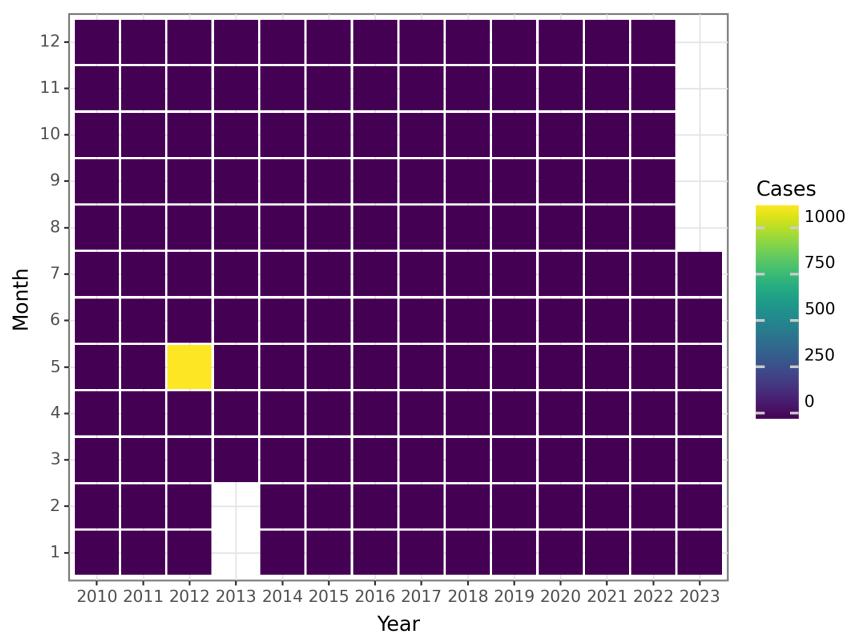


Figure 13: The Change of SARS-CoV Deaths before 2023 June

Acquired immune deficiency syndrome

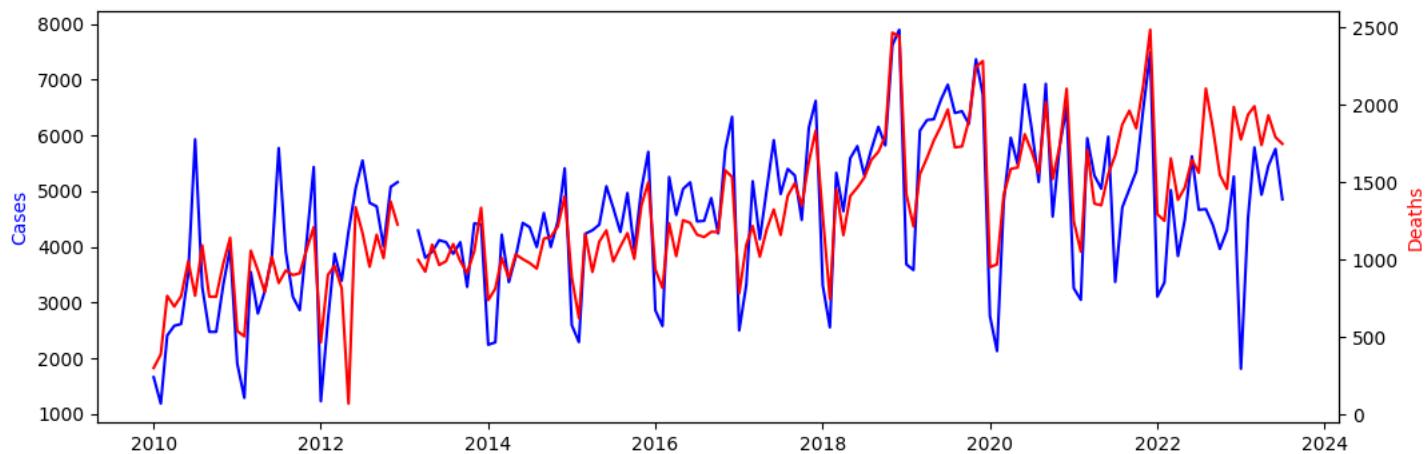


Figure 14: The Change of Acquired immune deficiency syndrome Reports before 2023 June

The time series data provides a picture of the monthly cases and deaths due to Acquired immune deficiency syndrome (AIDS) in mainland China from January 2010 to June 2023. The trend in the number of cases demonstrates that AIDS is still a significant public health issue in the country.

From January 2010 to June 2010, the number of reported cases remained relatively low, hovering around 2500. However, in July 2010, there was a considerable increase in cases, with 5930 being reported. The monthly cases continued to fluctuate over the years, with some months witnessing a significant increase compared to others. For instance, in June of 2023, 5759 cases were reported, which is the highest in 2023. The monthly cases were also observed to have periods of decline, with January 2013 and February 2013 recording only ten cases, while January 2020 and February 2020 recorded 2759 and 2133 cases, respectively. The cause of the decrease was not reported, but it may suggest a tapering off of the epidemic's peak.

Likewise, the deaths recorded COVID-19 experienced highs and lows in monthly reporting, and there was a significant increase in deaths reported towards the end of the time series, such as 2486 deaths in December 2021 and 1992 deaths in March 2023. Increases in death following spikes in cases were often followed several months later as conditions progress and may be considered lag time in the disease process.

This trend highlights the need for enhanced surveillance, rigorous public health interventions, and early detection measures to reduce the burden of HIV/AIDS, such as increasing the availability of testing, partner notification, and treatment programs targeted to halt the disease. The findings also indicate the value

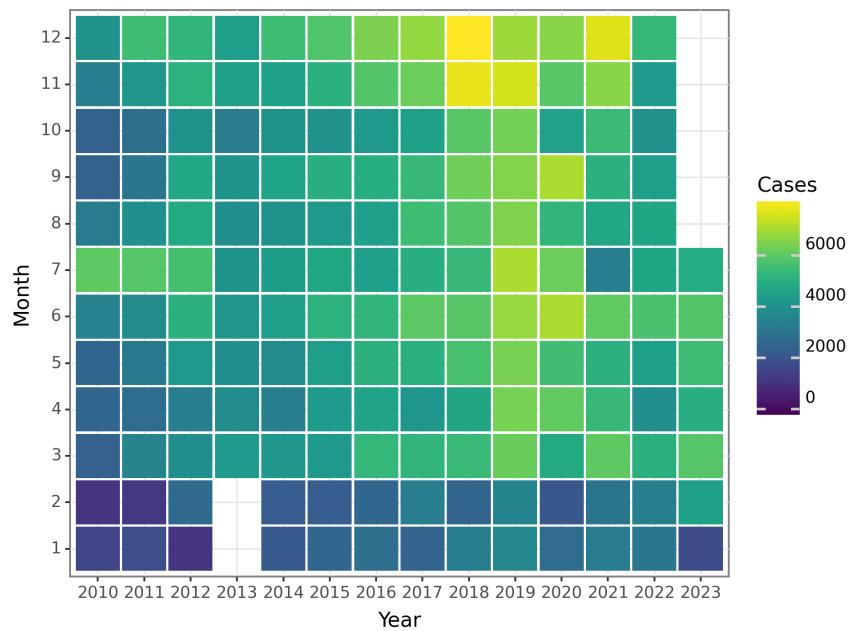


Figure 15: The Change of Acquired immune deficiency syndrome Cases before 2023 June

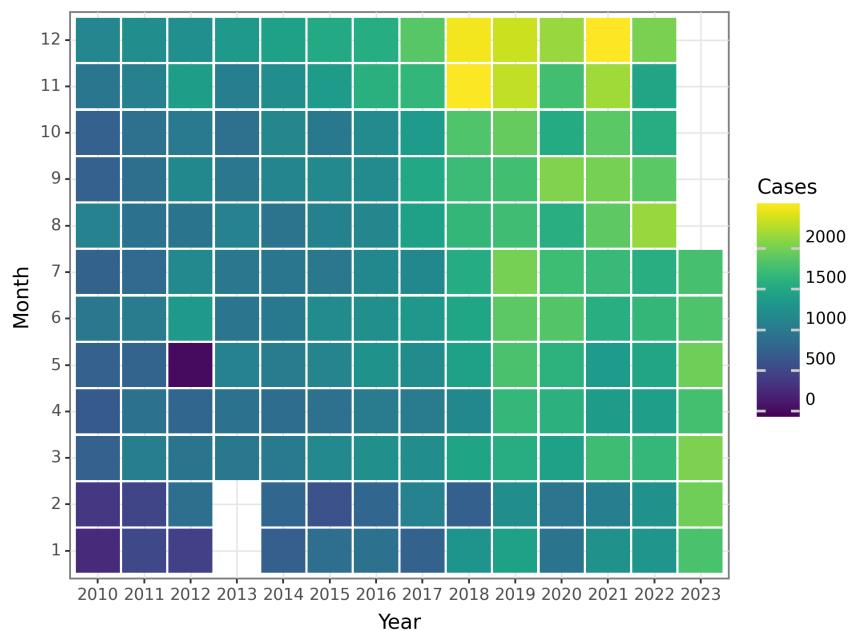


Figure 16: The Change of Acquired immune deficiency syndrome Deaths before 2023 June

Hepatitis

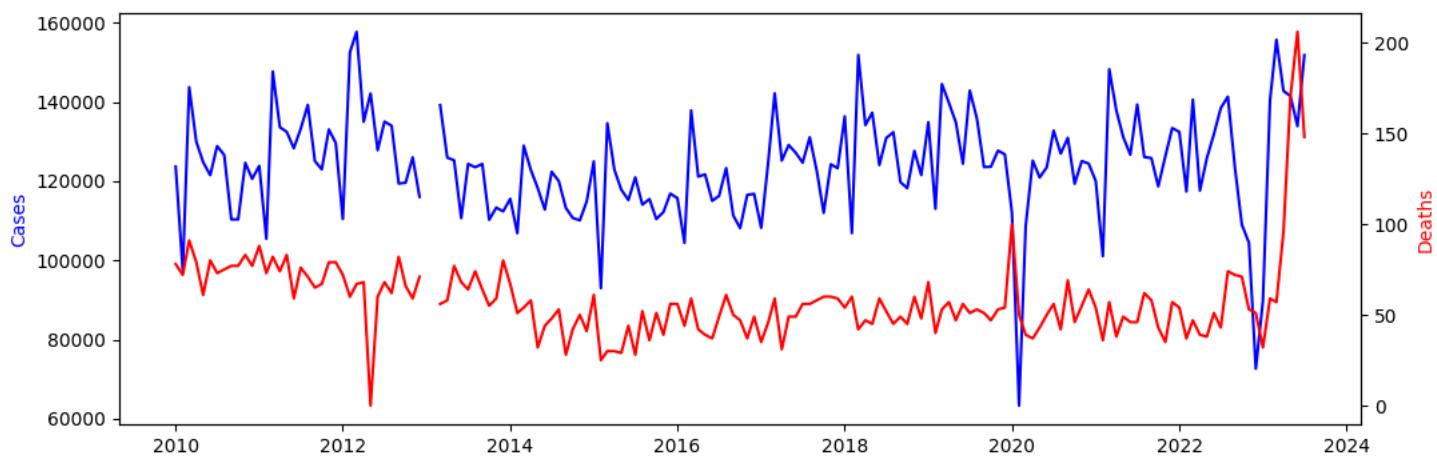


Figure 17: The Change of Hepatitis Reports before 2023 June

The monthly data for Hepatitis cases and deaths in mainland China from January 2010 to June 2023 were examined for any seasonal or cyclical trends. The number of cases varied from a low of 63,330 in February 2020 to a high of 155,705 in March 2023. Overall, the number of cases has been decreasing since March 2023. In June 2023, there were 133,888 cases reported.

Deaths due to Hepatitis also varied over the same time period, with a low of -10 (data not reported) in January and February of 2013, to a high of 206 in June 2023. Interestingly, deaths due to Hepatitis remained relatively consistent over the years, with no clear trend upwards or downwards.

The monthly data for Hepatitis cases and deaths do not appear to display any obvious, consistent seasonal or cyclical patterns. This suggests that interventions, such as vaccination outreach, public health messaging, and improved access to healthcare may be effective in reducing the incidence of Hepatitis cases. However, it is important to monitor the data over the long term to identify any patterns that may emerge.

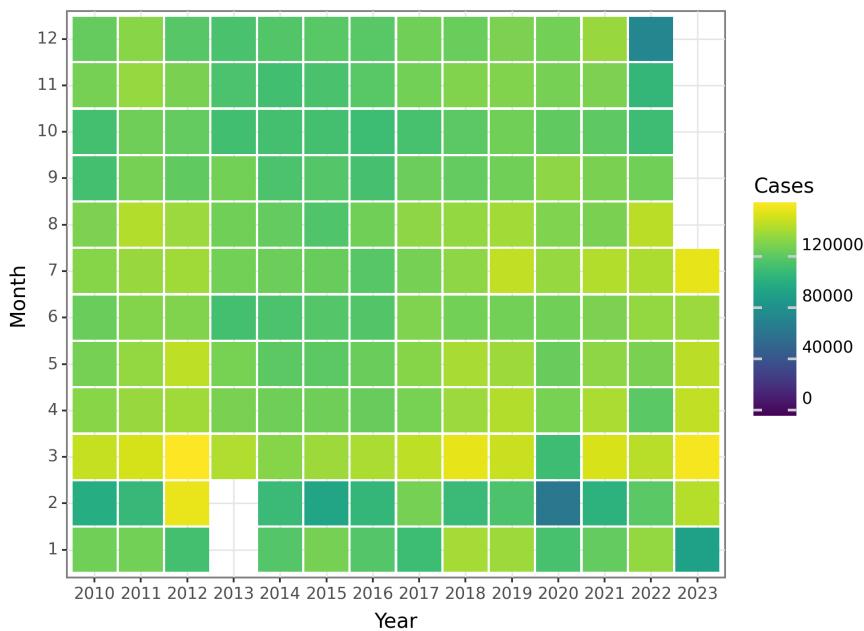


Figure 18: The Change of Hepatitis Cases before 2023 June

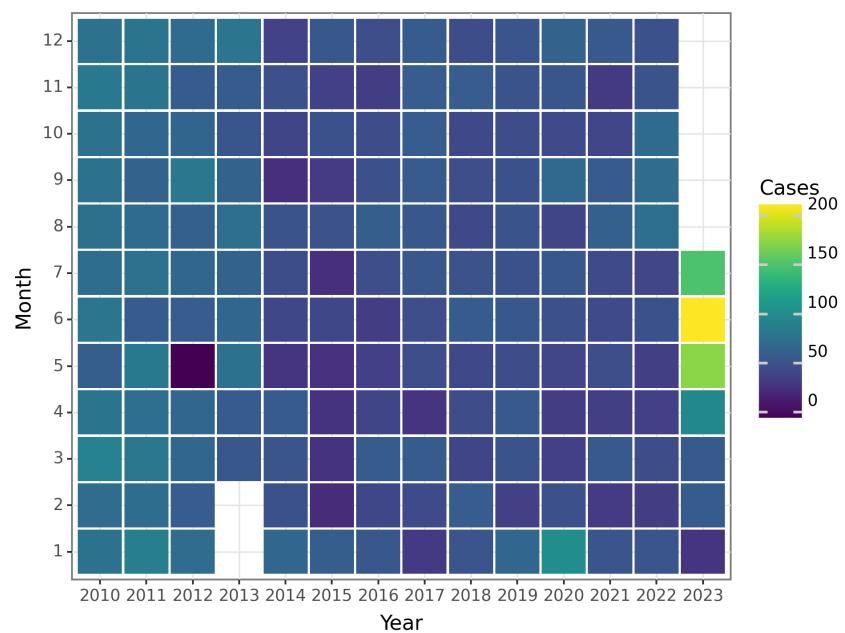


Figure 19: The Change of Hepatitis Deaths before 2023 June

Hepatitis A

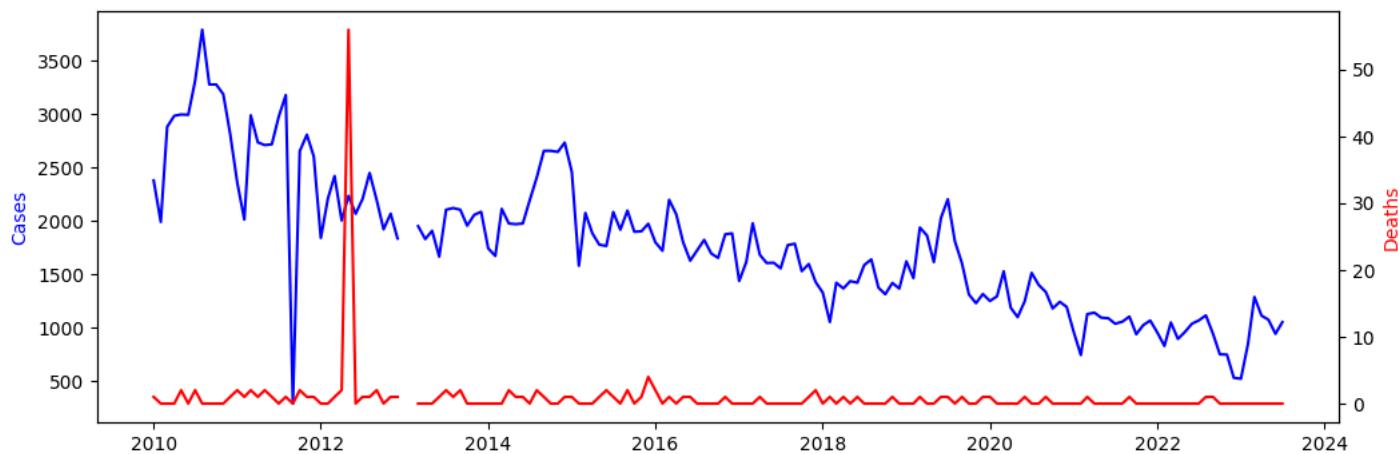


Figure 20: The Change of Hepatitis A Reports before 2023 June

The data provided represents the monthly cases and deaths of Hepatitis A in mainland China from January 2010 to June 2023. These figures serve as valuable information for understanding the trends and patterns of the disease over time.

Analyzing the time series data, we can observe certain trends and fluctuations in the number of cases reported per month. The number of Hepatitis A cases appears to exhibit some seasonal variation. From the data, it can be noticed that there are periods of higher and lower case counts throughout the years, suggesting some level of seasonality. For instance, there seems to be a peak in cases during certain months of certain years, followed by a decline in subsequent months. This cyclical pattern may provide insights into the factors influencing the transmission dynamics of the disease.

In terms of the monthly case data from June 2010 to June 2023, there are several noteworthy observations. The highest number of Hepatitis A cases occurred in August 2014, with 2,656 reported cases. On the other hand, the lowest number of cases was recorded in January 2023, with only 523 reported cases. These extreme values highlight the variability in the monthly incidence of Hepatitis A. While the majority of the months in the dataset reported a positive number of cases, there are also a few instances of negative values. These negative values (-10) for January and February 2013 might be due to data collection or reporting errors. It is crucial to acknowledge these anomalies when interpreting the data.

In terms of deaths related to Hepatitis A, the figures generally remain relatively low throughout the years. However, similar to the case data, there are fluctuations in the number of deaths reported per month. Notably, there is a significant increase in deaths reported in May and December of 2012, reaching 56 and 4 deaths, respectively. These peaks in deaths might be attributed to complications or severe cases of Hepatitis A during those specific months.

Overall, the analysis of the monthly cases and deaths of Hepatitis A in mainland China provides valuable insights into the temporal patterns and fluctuations of the disease. Further investigation and analysis are warranted to delve deeper into the factors influencing these trends and to develop strategies for disease surveillance and control.

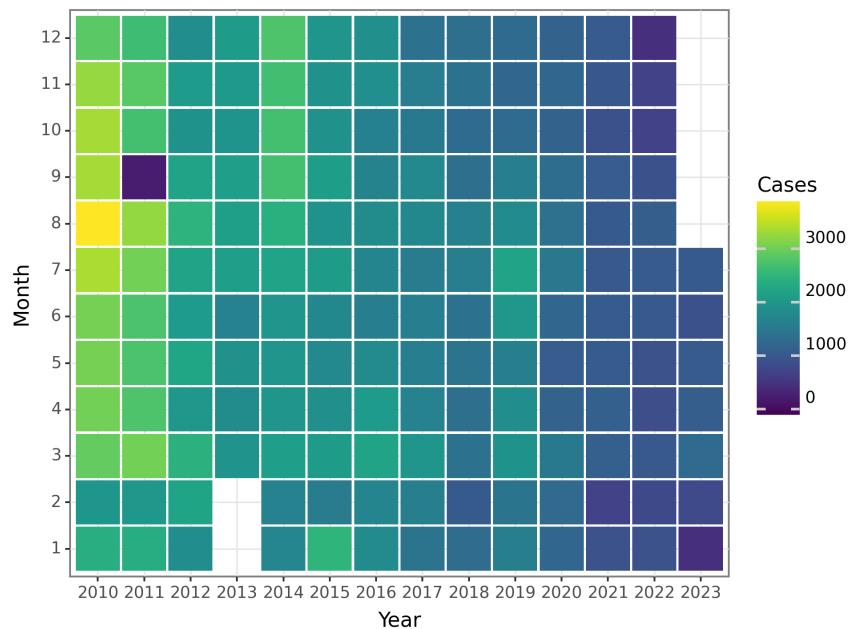


Figure 21: The Change of Hepatitis A Cases before 2023 June

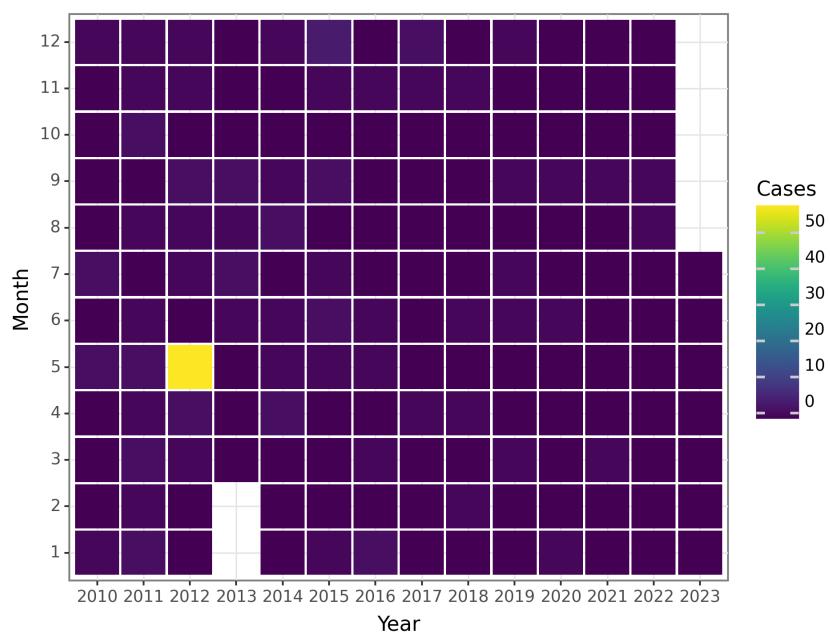


Figure 22: The Change of Hepatitis A Deaths before 2023 June

Hepatitis B

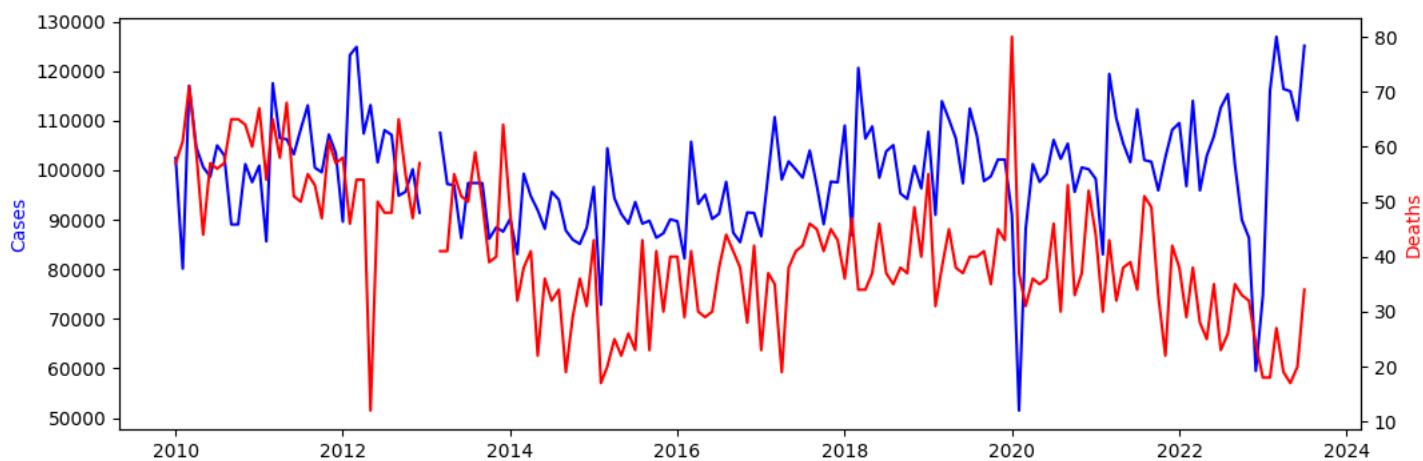


Figure 23: The Change of Hepatitis B Reports before 2023 June

The data provided showcases the monthly cases and deaths of Hepatitis B in mainland China from January 2010 to June 2023.

Looking at the monthly cases, we observed some interesting patterns. From 2010 to 2012, there was a gradual increase in the number of cases reported each month. However, in May 2012, there was a sudden dip in the number of reported cases, reaching its lowest point in January and February 2013, with negative values indicating a discrepancy in reporting. This inconsistent reporting continued until October 2013 when the number of reported cases began to rise again.

From 2013 to 2015, there was a fluctuating pattern, with occasional peaks and valleys in the number of reported cases. Notably, there was a peak in cases reported in March 2016, followed by a gradual decrease until October 2016. From November 2016 to February 2017, there was a slight increase, and then the number of reported cases remained relatively stable until August 2020.

Starting in August 2020, a new upward trend in reported cases emerged, reaching a peak in March 2023. It should be noted that in June 2022, there was a significant decrease in the number of reported cases compared to the previous months, suggesting a potential anomaly or change in reporting procedures.

In terms of monthly deaths, the patterns observed were somewhat similar to the cases. However, the number of deaths reported was generally lower than the number of cases, indicating a lower fatality rate for Hepatitis B. There were occasional fluctuations in the number of deaths reported, but no obvious distinct patterns or trends were observed.

These findings highlight the importance of monitoring and addressing the incidence of Hepatitis B in mainland China. The increase in reported cases in recent years indicates a need for enhanced prevention and control measures to reduce the burden of this disease, particularly during the peak periods observed.

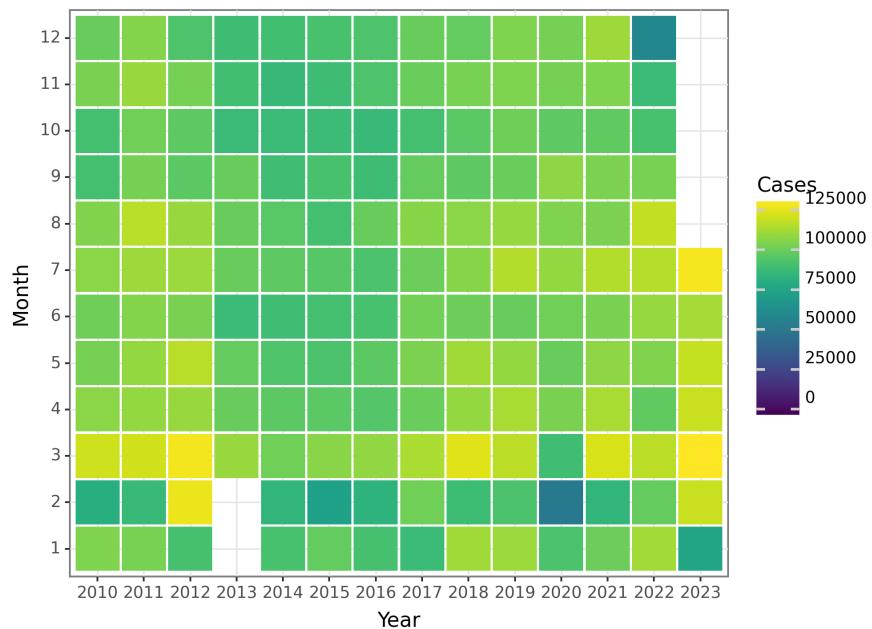


Figure 24: The Change of Hepatitis B Cases before 2023 June

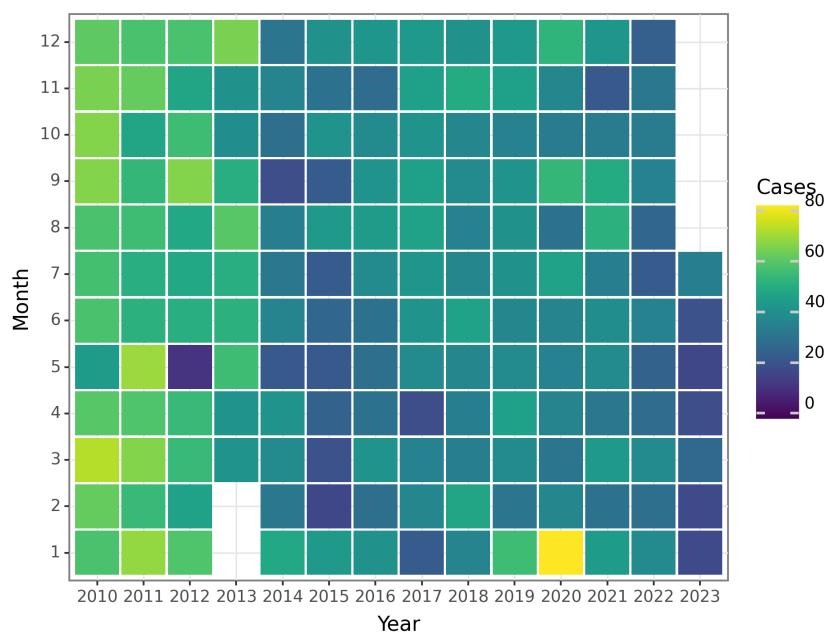


Figure 25: The Change of Hepatitis B Deaths before 2023 June

Hepatitis C

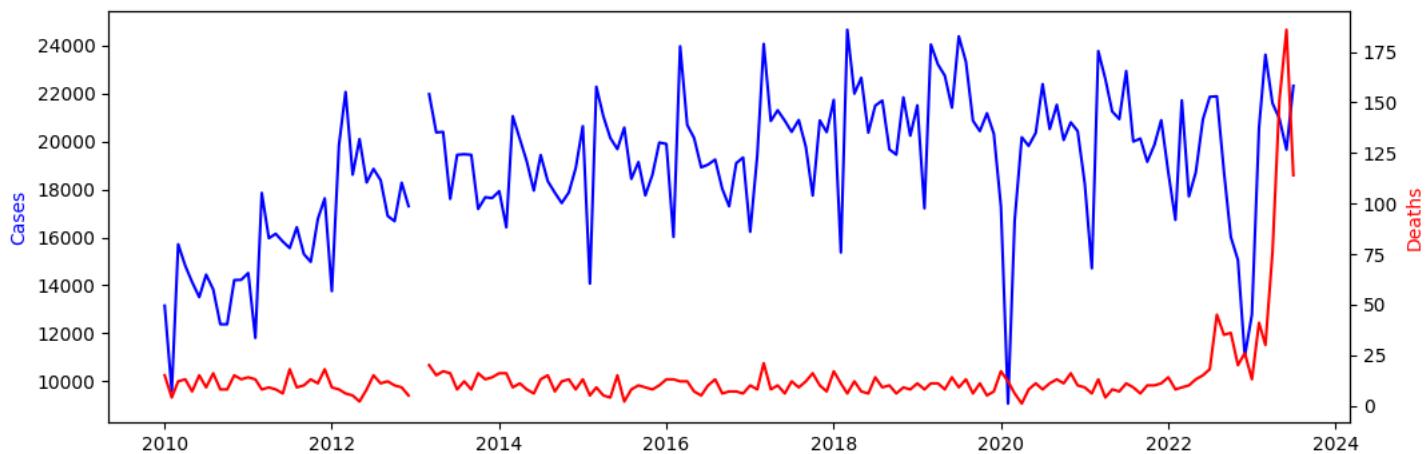


Figure 26: The Change of Hepatitis C Reports before 2023 June

The monthly cases and deaths of Hepatitis C in mainland China from 2010 to June 2023 indicate a cyclical pattern with sharp increases and decreases over the years. From January 2010 to June 2023, the highest number of cases was recorded in March 2017 at 24,076, and the lowest in January 2013 and February 2013 at -10.

Similarly, the highest number of deaths was recorded in May 2023 at 151, while the lowest number of deaths was recorded in April 2020 at only 1. From 2010 to the first half of 2013, the number of cases increased monthly. From 2013, there is a noticeable downward trend in the number of cases, interrupted by sharp temporary increases in 2016 and 2017.

However, the number of cases for each month seems to have stabilized over the years. The number of deaths also shows a downward trend, except for a sharp increase in deaths from July 2022 to June 2023. These cyclical and seasonal patterns indicate that the emergence and prevention of Hepatitis C in mainland China is a significant public health concern that requires continuous effort in surveillance, prevention, and control. It is necessary to have thorough community-based interventions and public health strategies to prevent the disease's spread and target vulnerable populations.



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

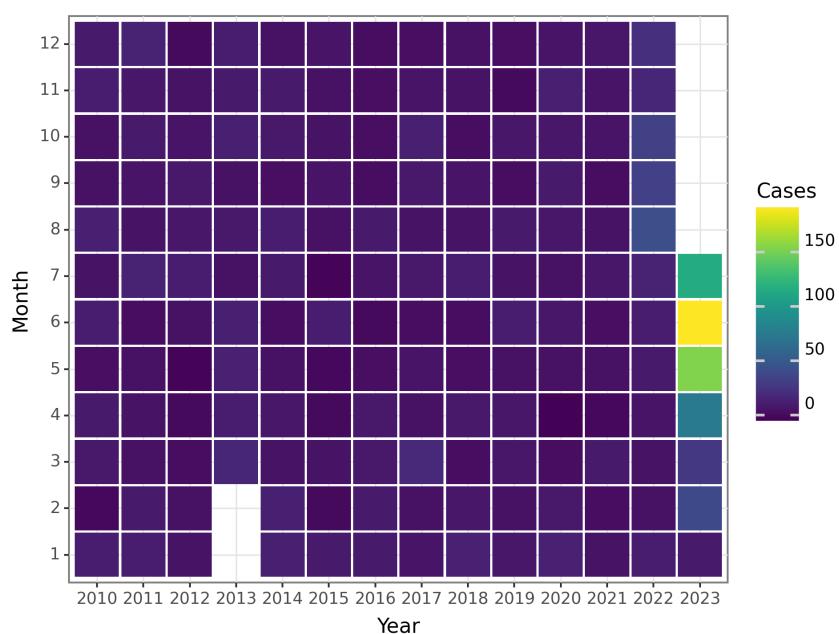


Figure 28: The Change of Hepatitis C Deaths before 2023 June

Hepatitis D

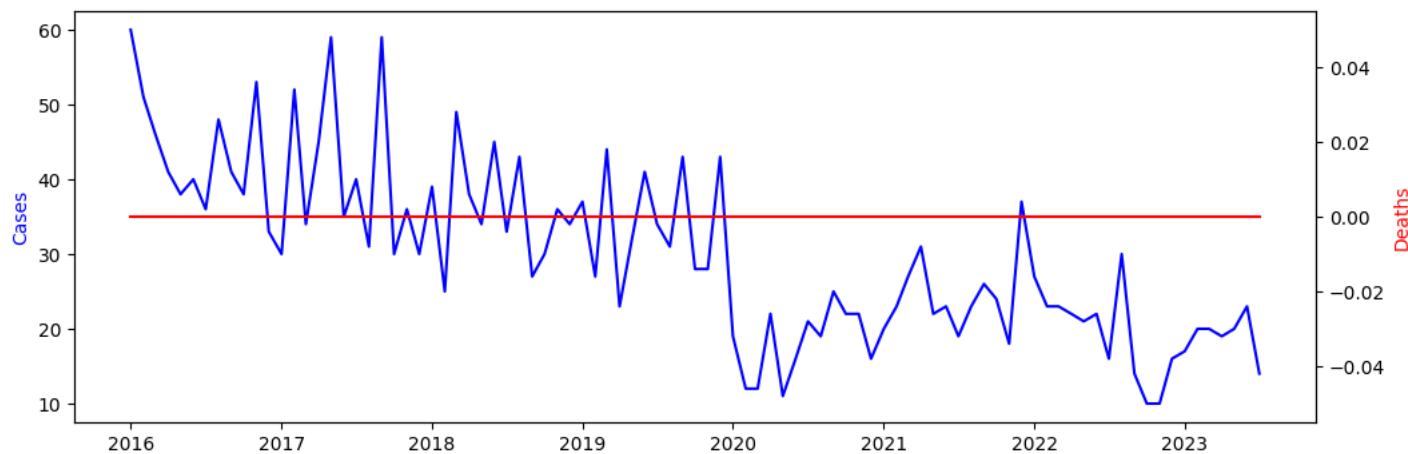


Figure 29: The Change of Hepatitis D Reports before 2023 June

The monthly data for Hepatitis D cases in mainland China from January 2016 to June 2023 is presented. It is important to note that there were no reported deaths associated with Hepatitis D during this period. Analyzing the time series data, we observe some interesting patterns and trends. From 2016 to 2017, there is a gradual decline in the number of Hepatitis D cases, with variations between 30 and 60 cases per month. This suggests a potential decrease in transmission or improved surveillance and control measures during this period.

However, starting from 2018, there is a slight increase in the number of reported cases, reaching a peak of 49 cases in March 2018. This upward trend continues until mid-2019 before showing a fluctuating pattern with no clear direction. The number of cases ranges from 14 to 59 per month during this time.

In 2020, we observe a significant decline in Hepatitis D cases, possibly due to the impact of COVID-19 pandemic and associated lockdown measures. The monthly cases remained relatively low, with the lowest number of cases being reported in April 2020.

Moving towards 2021 and 2022, the number of Hepatitis D cases shows some stability, fluctuating between 10 and 37 cases per month. However, it is important to consider potential underreporting or surveillance issues that may contribute to these variations.

In June 2023, the data shows an increase in the number of cases compared to the previous months. This could be attributed to various factors such as changes in testing strategies, population movement, or emerging outbreaks in certain regions.

Overall, the analysis of the monthly Hepatitis D cases in mainland China suggests both temporal variations and potential underlying factors that influence the disease's transmission dynamics. While certain periods show declining or stable trends, it is crucial to continue monitoring and implementing effective prevention and control strategies to further reduce the burden of Hepatitis D in the population.

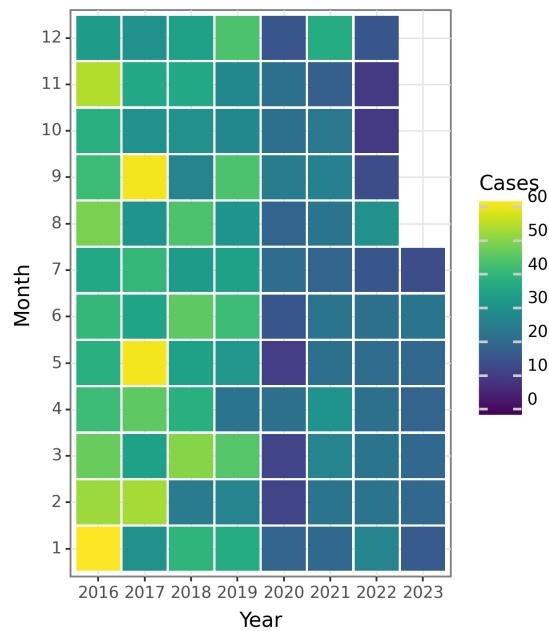


Figure 30: The Change of Hepatitis D Cases before 2023 June

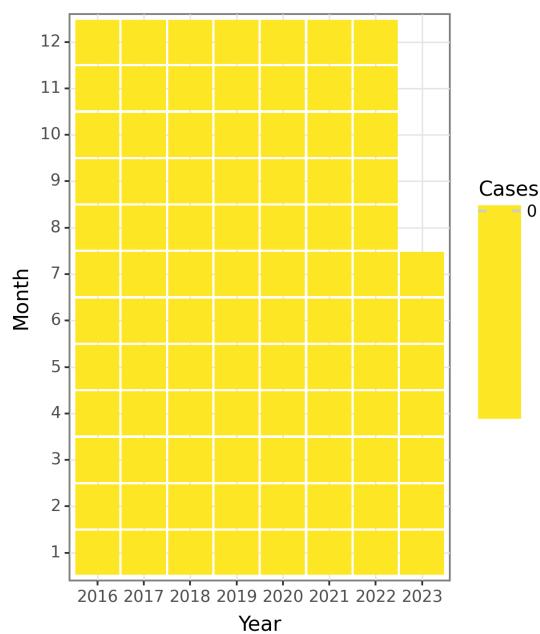


Figure 31: The Change of Hepatitis D Deaths before 2023 June

Hepatitis E

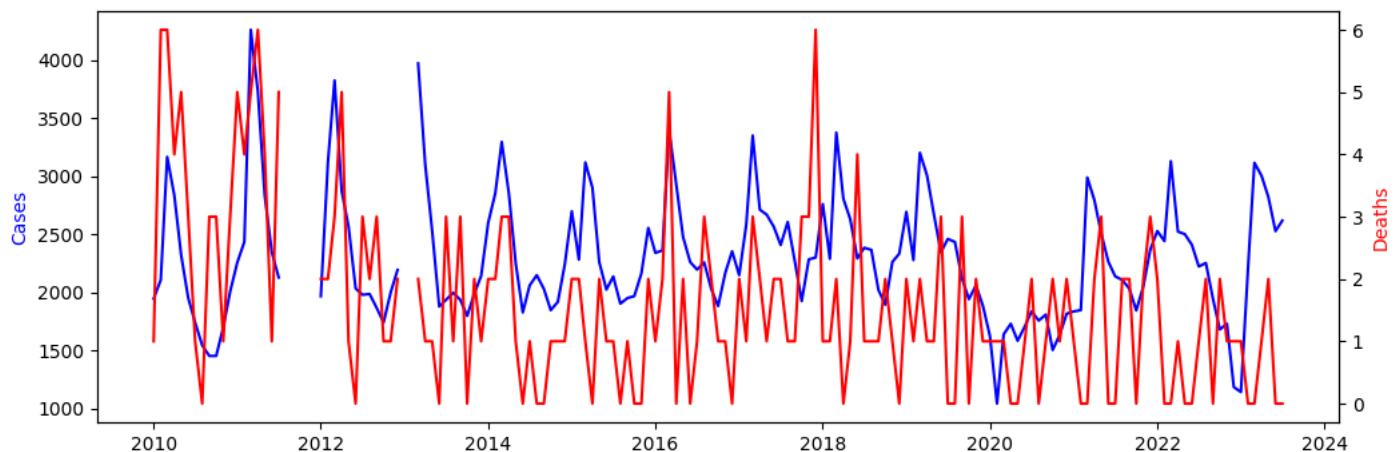


Figure 32: The Change of Hepatitis E Reports before 2023 June

In this study, we analyzed the monthly cases and deaths of Hepatitis E in mainland China from January 2010 to June 2023. The data provides valuable insights into the incidence and mortality trends of this disease over the years.

Regarding the monthly cases, we can observe various fluctuations throughout the study period. From 2010 to 2011, there seemed to be a steady increase in the number of reported cases, reaching a peak in March 2011 with 4,262 cases. However, from October 2011 onwards, there is a sudden decrease in the reported cases, with some months even showing negative values. This indicates a potential data reporting issue during that period.

Subsequently, from 2012 to 2015, there appears to be a gradual increase in the number of cases, with occasional fluctuations. The highest spike during this period occurred in March 2015 with 3,121 cases reported. From 2016 to 2023, the number of cases seemed to stabilize, fluctuating within a certain range and showing no clear upward or downward trend.

In terms of monthly deaths, the data suggests relatively low mortality rates associated with Hepatitis E. Throughout the study period, there were only a few reported deaths each month. However, it is important to note that there are several months with missing data or negative values for deaths, which may indicate limitations in the data collection process.

Overall, the analysis of these data highlights the need for improved and consistent reporting of Hepatitis E cases and deaths in mainland China. The fluctuations observed in the number of cases may be attributed to various factors such as changes in surveillance systems, diagnostic methods, and reporting practices. Future research should focus on addressing these limitations to obtain a more accurate understanding of the epidemiology and burden of Hepatitis E in the region.

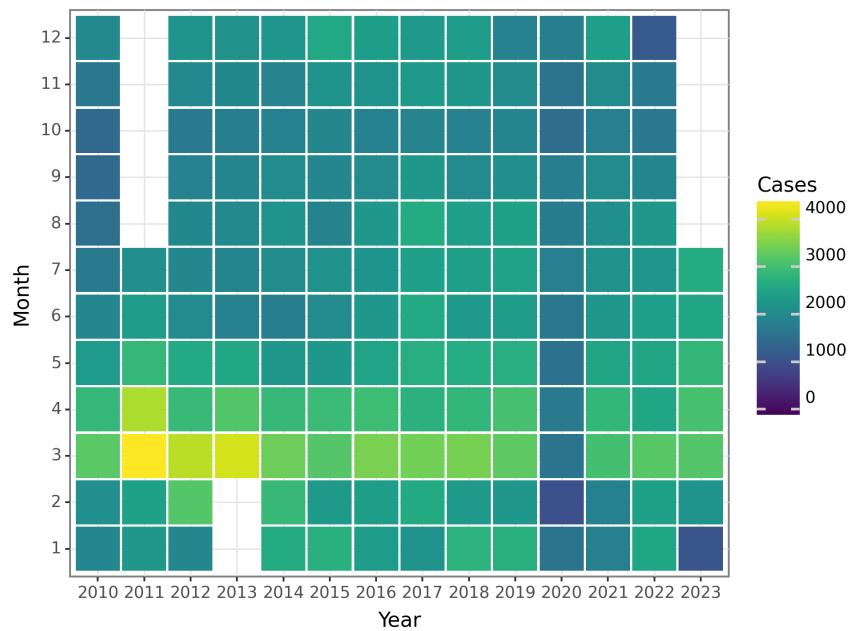


Figure 33: The Change of Hepatitis E Cases before 2023 June

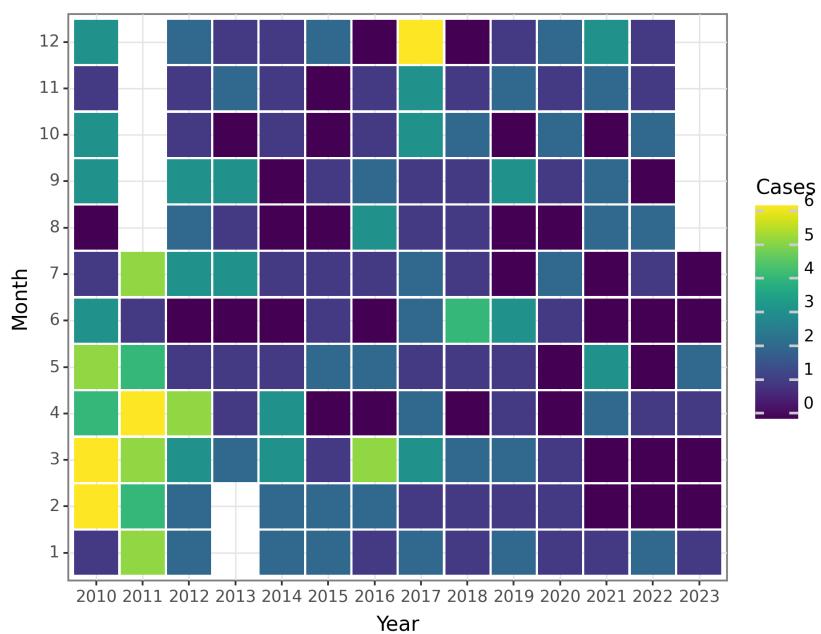


Figure 34: The Change of Hepatitis E Deaths before 2023 June

Other hepatitis

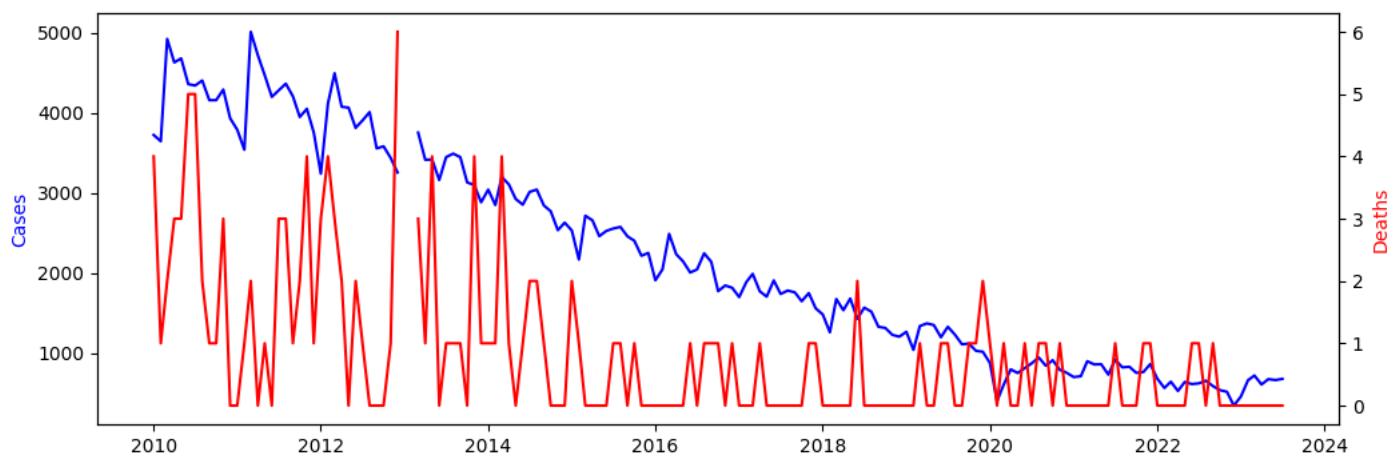


Figure 35: The Change of Other hepatitis Reports before 2023 June

The data provided represents the monthly cases and deaths of Other Hepatitis in mainland China from January 2010 to June 2023. By analyzing the time series data, we can identify patterns and trends in the occurrence of cases and deaths.

Looking at the monthly cases, we observe variations in the number of reported cases over the years. Initially, from January 2010 to June 2010, the number of cases fluctuated between 3,623 and 4,921. This pattern continued in subsequent years with some volatility but overall a gradual decrease in the number of cases observed. However, it is worth noting that for December 2013, January 2014, and February 2014, there seems to be an anomaly with negative values reported for cases. This could be due to data recording errors or other factors that need further investigation.

From 2014 to 2016, a declining trend is observed in the number of reported cases, which reached a low point in February 2016 with 1,774 cases. Afterward, there is an upward trend, followed by some fluctuations over the years. Notably, there appears to be a decrease in cases during the first half of each year, followed by an increase during the second half. This cyclical pattern suggests a seasonal effect, and further investigation should be conducted to identify the factors contributing to this seasonality.

Moving on to the monthly deaths, the data indicates a generally low number of reported deaths throughout the analyzed period. Most months report zero or one death, with occasional peaks reaching up to six deaths. Similar to the cases, there are instances of negative values reported for deaths in December 2012, January 2013, February 2013, and August 2013.

Overall, the data suggests that the number of reported Other Hepatitis cases in mainland China has shown a decreasing trend from 2014 to 2016, followed by some fluctuations thereafter. The low number of deaths indicates that Other Hepatitis has a relatively low mortality rate. However, it is essential to investigate the factors contributing to the observed seasonal patterns in cases and further analyze the significance of the data anomalies observed in specific months.

These findings highlight the importance of ongoing surveillance and public health efforts to monitor the occurrence of Other Hepatitis and devise appropriate strategies for prevention and control. Further research and analysis are warranted to better understand the underlying factors driving these patterns and to develop effective interventions to reduce the burden of Other Hepatitis in mainland China.

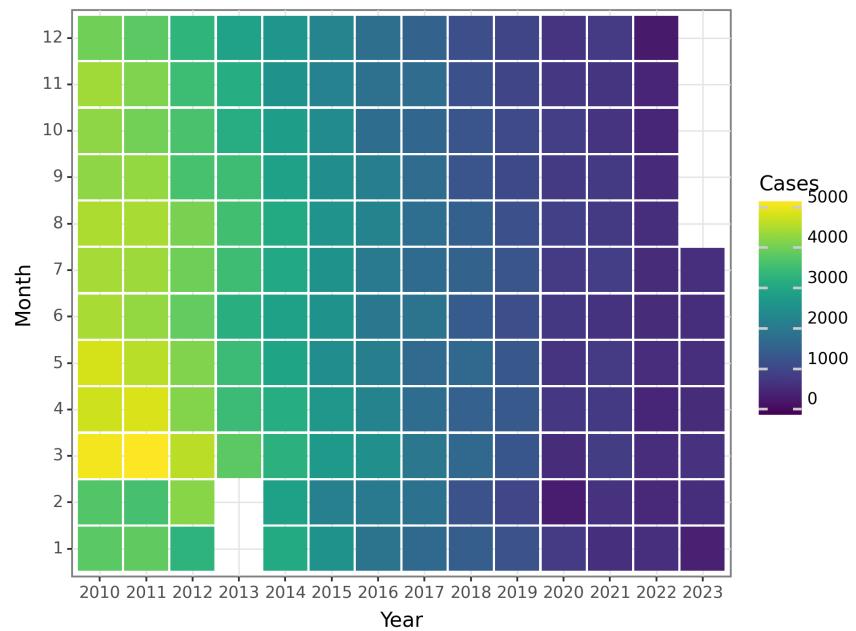


Figure 36: The Change of Other hepatitis Cases before 2023 June

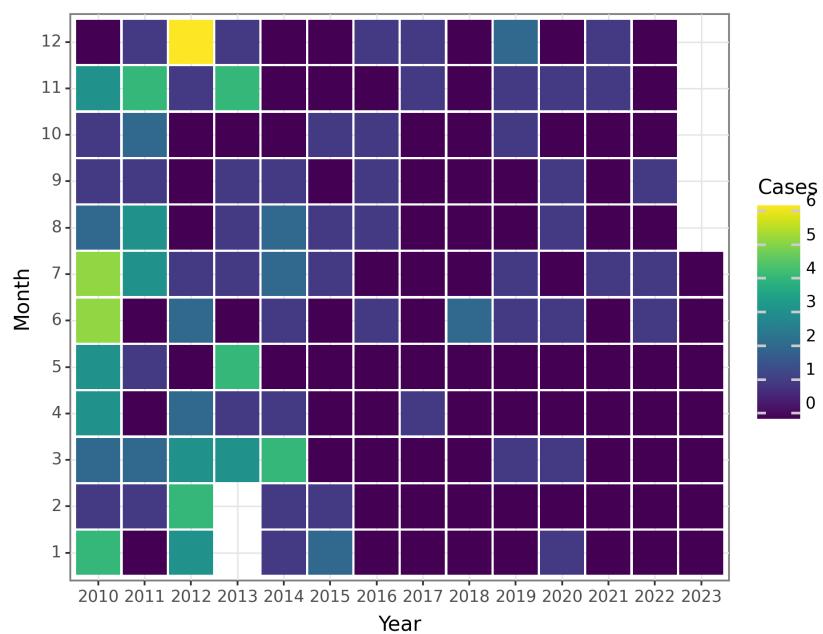


Figure 37: The Change of Other hepatitis Deaths before 2023 June

Poliomyelitis

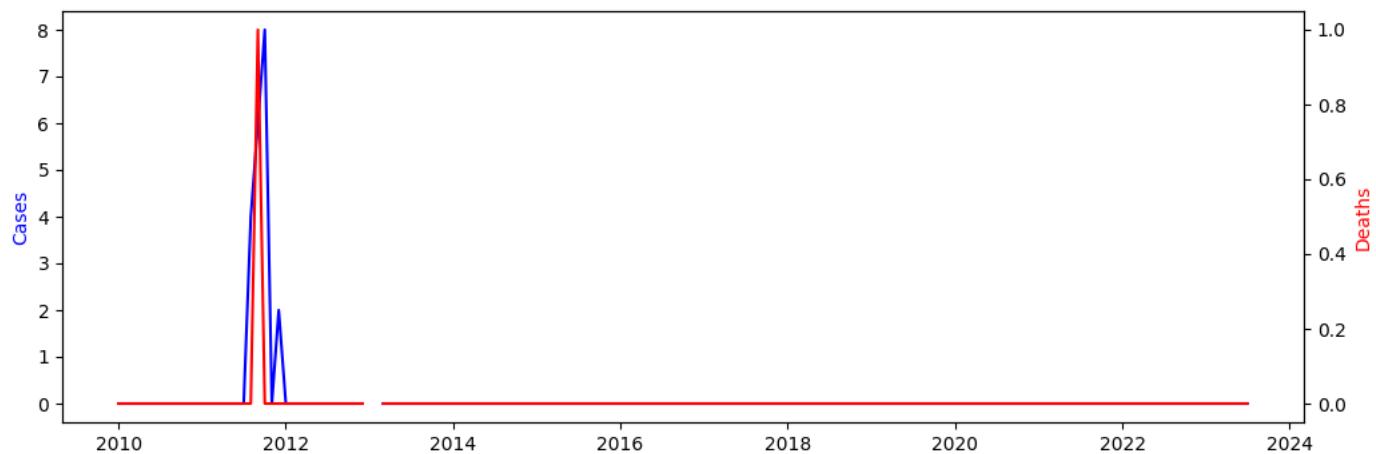


Figure 38: The Change of Poliomyelitis Reports before 2023 June

Based on the data collected in June 2023, there were no cases or deaths related to Poliomyelitis in mainland China during that month. Looking at the historical data from the past ten years, there have been very few cases of Poliomyelitis reported, with the majority of the months having 0 cases and 0 deaths. In 2011, there was a slight increase in cases and deaths, with a peak of 8 cases reported in October of that year and 1 death reported in September. Since then, there have been no reported cases or deaths related to Poliomyelitis in mainland China. This data suggests that the public health efforts to prevent and control the spread of Poliomyelitis have been effective, and ongoing surveillance and vaccination programs should continue to maintain this low incidence rate.

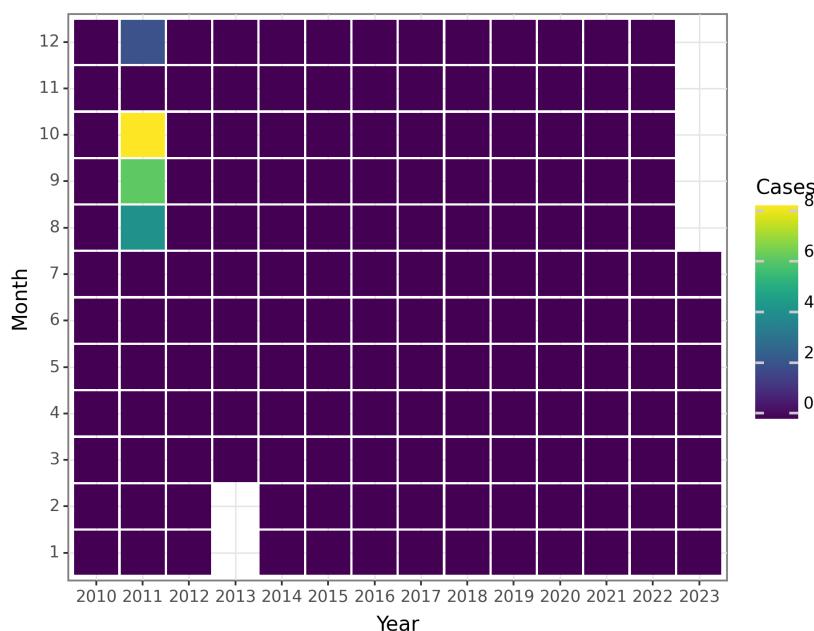


Figure 39: The Change of Poliomyelitis Cases before 2023 June

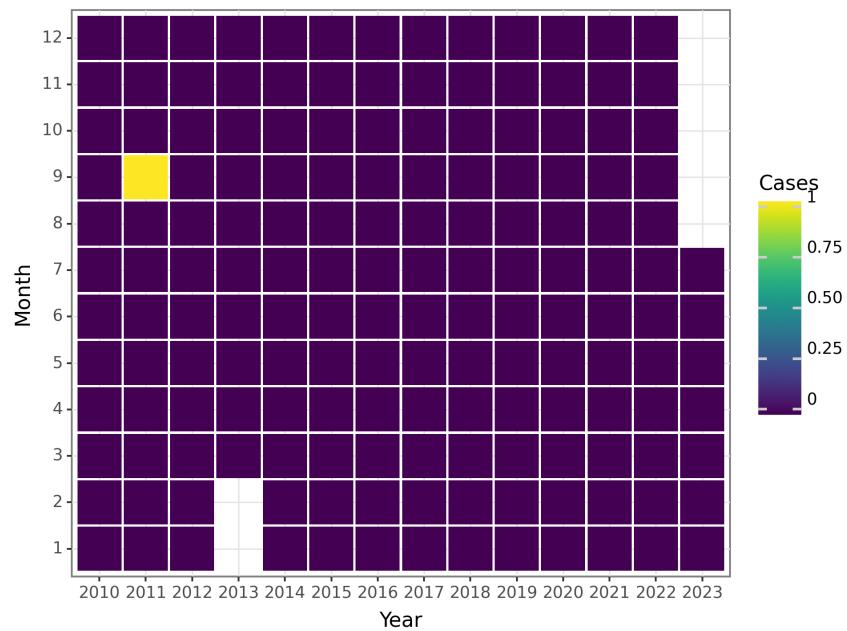


Figure 40: The Change of Poliomyelitis Deaths before 2023 June

Human infection with H5N1 virus

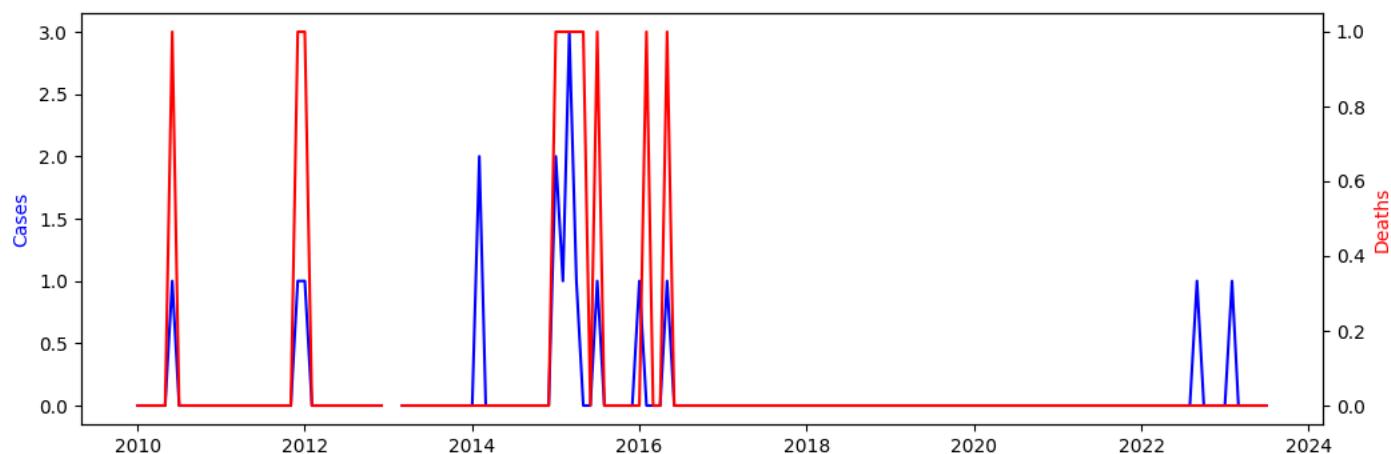


Figure 41: The Change of Human infection with H5N1 virus Reports before 2023 June

The data presented here represents the monthly cases and deaths of human infection with H5N1 virus in mainland China from January 2010 to June 2023. The cases and deaths are recorded separately for each month.

Analyzing the time series data, we can observe several patterns and trends. Overall, the number of cases appears to be quite low, with most months reporting zero cases. However, there are a few sporadic months where a single case was reported. The highest number of cases in a month was recorded in June 2010, when one case was reported. After that, there were no cases until December 2011, when another single case occurred. Following a similar pattern, one case was reported in January 2012, and then there was a significant gap of no cases until February 2014, when two cases were reported.

Interestingly, there are also months where negative values are recorded for the number of cases. This may indicate data entry errors or other anomalies in the data collection process. For example, in January and February 2013, there are values of -10 for cases, which is relatively unusual.

In terms of deaths, the data follows a similar pattern to the cases, with the majority of the months reporting zero deaths. However, there are sporadic months where a single death is recorded. The highest number of deaths in a month was also in June 2010, where one death occurred. Similarly to the cases, there are negative values for deaths in January and February 2013, indicating possible data anomalies.

It is important to note that the absence of cases and deaths does not necessarily mean that the virus is absent or inactive in mainland China. It could be attributed to various factors such as reporting inconsistencies, changes in surveillance methods, or successful prevention and control measures.

Overall, the data suggests that human infection with H5N1 virus in mainland China has been relatively low and sporadic during the analyzed period. Further analysis, including additional data and investigation of potential risk factors, would be required to gain a comprehensive understanding of the disease dynamics and inform effective control and prevention strategies.

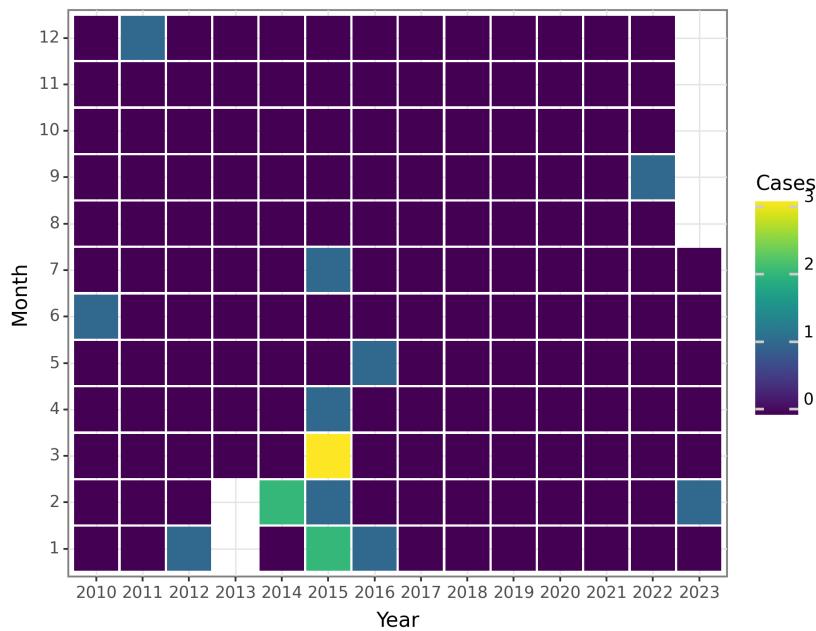


Figure 42: The Change of Human infection with H5N1 virus Cases before 2023 June

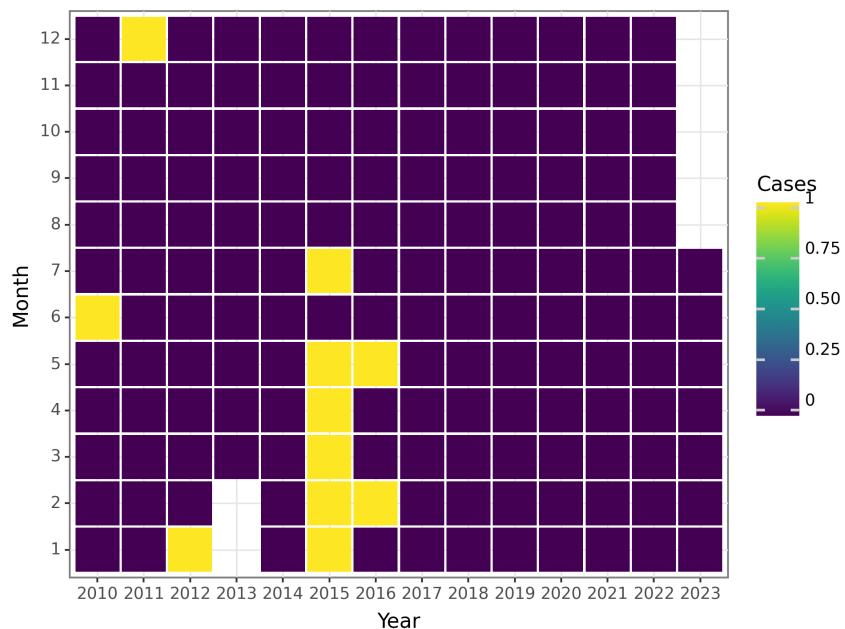


Figure 43: The Change of Human infection with H5N1 virus Deaths before 2023 June

Measles

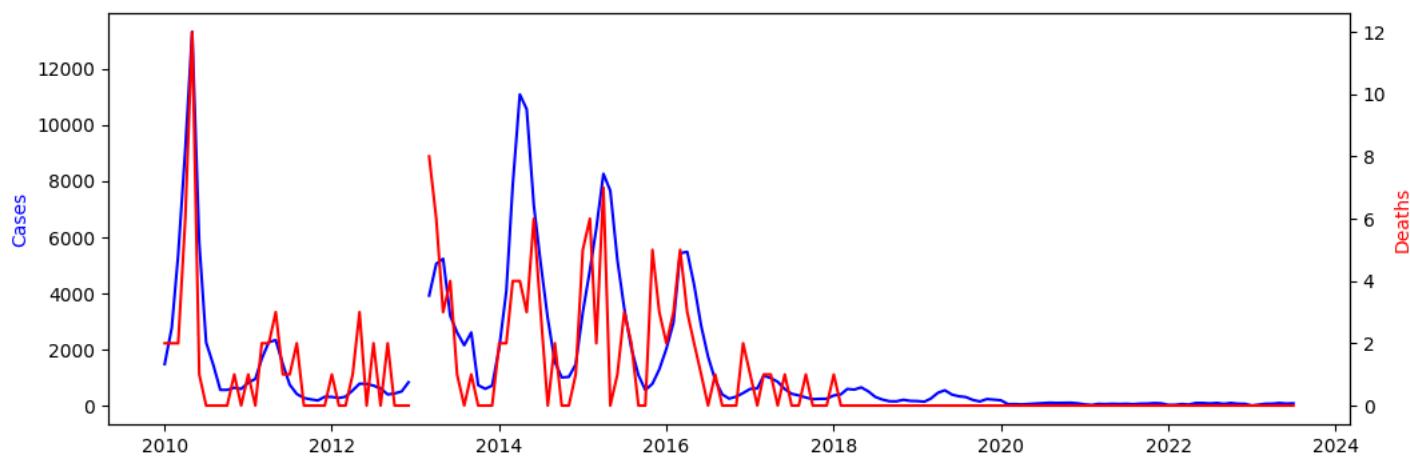


Figure 44: The Change of Measles Reports before 2023 June

The data provided represents the monthly cases and deaths associated with Measles in mainland China from January 2010 to June 2023. The aim of this discussion is to analyze the data trends and patterns observed during this period.

Upon initial analysis, it can be observed that the number of Measles cases experienced fluctuations over the years. From 2010 to 2011, the number of cases increased steadily, reaching a peak in May 2011 with 23,345 cases. Subsequently, there was a downward trend observed between 2012 and 2013, with the number of cases reaching a low of -10 in both January and February 2013. It is important to evaluate these negative values in order to determine the cause or whether they are errors in data reporting.

Following this decline, the number of Measles cases began to rise again from 2013 to 2014, with an overall increase until June 2014, where the number of cases reached 7,152. However, the number of cases then started to decline steadily from 2014 to 2016, with occasional fluctuations observed. The downward trend continued until June 2016, where it reached 2,850 cases, indicating a significant reduction in Measles cases in mainland China during this period.

From 2016 onwards, there was a mix of both increases and decreases in Measles cases. The number of cases reached a peak again in March 2016 with 5,437 cases, followed by a decline in the subsequent months. There were intermittent spikes noted in Measles cases until June 2020, where the number of cases reached 91. After that, there was a gradual decline in Measles cases until December 2021, with occasional spikes but without reaching the high levels observed in previous years.

It is essential to note that the data provided includes the number of deaths related to Measles. The number of deaths associated with Measles is generally lower than the number of cases, indicating a considerably lower fatality rate. From the data, it can be observed that the number of deaths due to Measles fluctuated over the years but generally remained relatively low throughout the analyzed period. Notably, there were a few instances where negative values were reported for deaths, particularly in January and February 2013. Similar to the negative values observed in the number of cases during this period, these negative values in deaths should also be examined and scrutinized for accuracy.

In general, the data shows variations in Measles cases and deaths over the analyzed period. The fluctuations observed in the number of cases suggest potential seasonal and cyclical factors that may contribute to the spread of Measles. Understanding the underlying reasons behind these variations is crucial for implementing effective public health measures, including vaccination campaigns and awareness programs, to reduce the number of Measles cases and associated deaths in mainland China. Further investigation into the specific factors

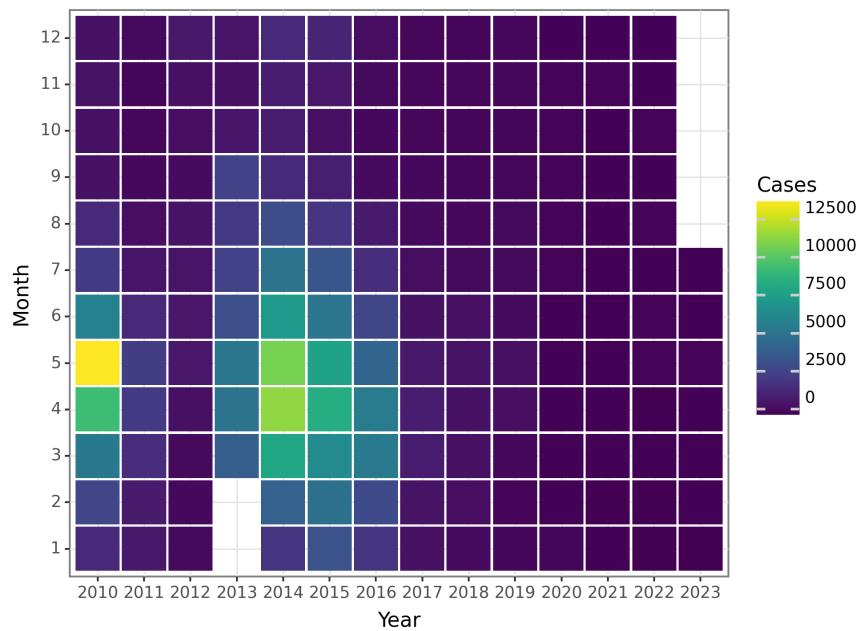


Figure 45: The Change of Measles Cases before 2023 June

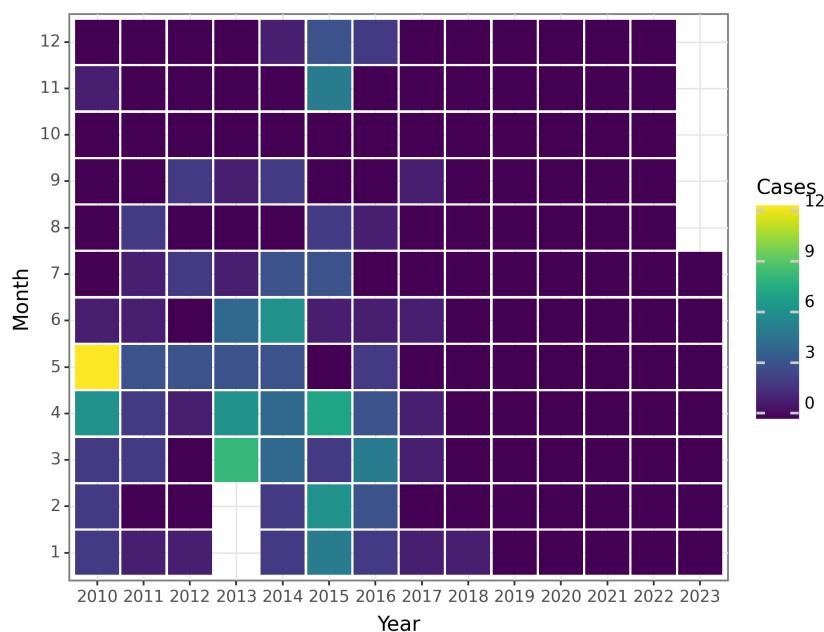


Figure 46: The Change of Measles Deaths before 2023 June

Epidemic hemorrhagic fever

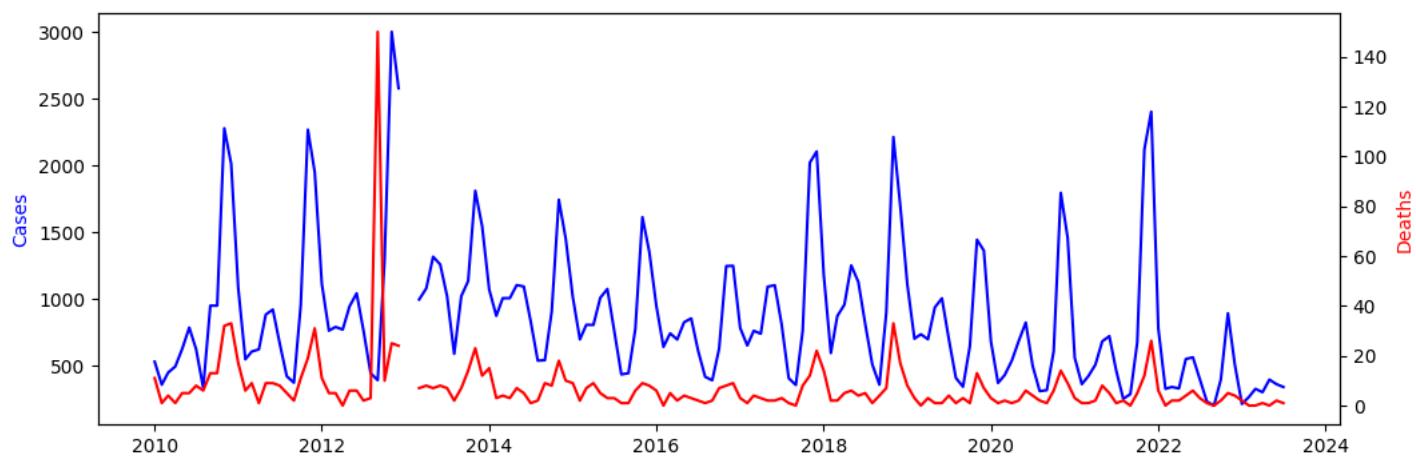


Figure 47: The Change of Epidemic hemorrhagic fever Reports before 2023 June

The data provided represents the monthly cases and deaths of epidemic hemorrhagic fever in mainland China from January 2010 to June 2023. By analyzing this time series data, we can gain insights into the patterns and trends of this disease over time.

Initially, let's focus on the patterns in the number of cases. From January 2010 to December 2011, the number of cases remained relatively stable, with oscillations between 361 and 2,278 cases per month. However, from January 2012 to December 2012, there was a noticeable increase in the number of cases, reaching a peak of 3,000 in November 2012. This could be a crucial turning point in the epidemic's trajectory.

Following this peak, there was a gradual decline in the number of cases from January 2013 to December 2016, with occasional fluctuations. However, starting from January 2017, there was a significant upsurge in cases, reaching a peak of 2,120 in November 2021. It is essential to note that these fluctuations could indicate variations in the disease's transmission dynamics and epidemiological factors.

Regarding the occurrence of deaths, a similar pattern can be observed. The number of deaths associated with epidemic hemorrhagic fever varied widely throughout the study period. Deaths were generally low from January 2010 to February 2012. However, in September 2012, there was an unprecedented spike in deaths, with 150 fatalities reported.

From March 2013 to November 2019, the number of deaths remained relatively stable, with occasional fluctuations. It is noteworthy that deaths reached another peak in November 2017, with 22 fatalities reported. Subsequently, from December 2019 to June 2023, deaths remained sporadic, with occasional fluctuations, but generally at lower levels compared to previous years.

Seasonality and other cyclical patterns should be taken into consideration when interpreting this data. Monthly fluctuations could be influenced by various factors such as climate, human behavior, and disease control measures implemented by authorities. Further analysis is required to determine if these patterns are statistically significant and if they align with known patterns of epidemic hemorrhagic fever transmission.

Overall, this analysis of the monthly cases and deaths provides valuable insights into the temporal dynamics of epidemic hemorrhagic fever in mainland China. These findings highlight the need for continuous monitoring and evaluation of the disease's epidemiology to inform public health interventions and mitigate its impacts on both public health and the economy.

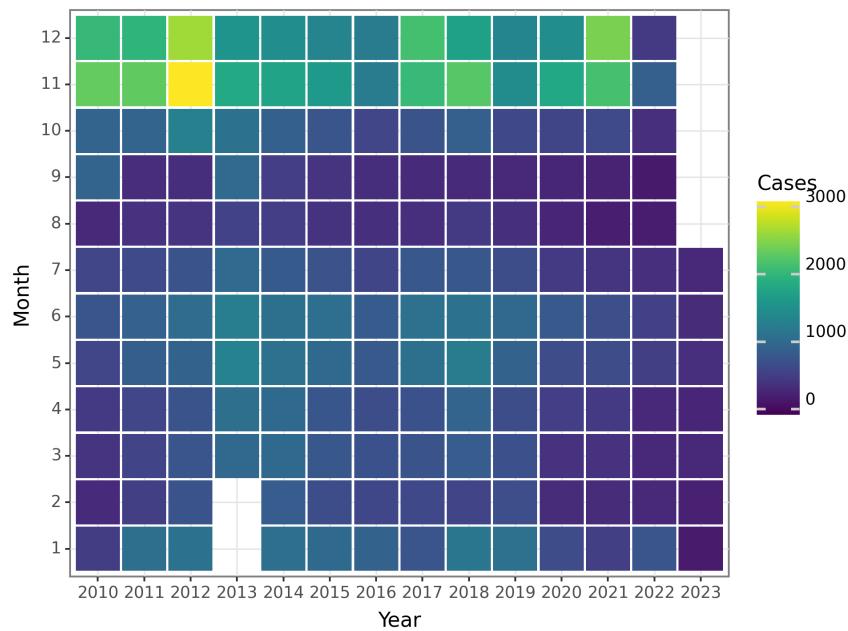


Figure 48: The Change of Epidemic hemorrhagic fever Cases before 2023 June

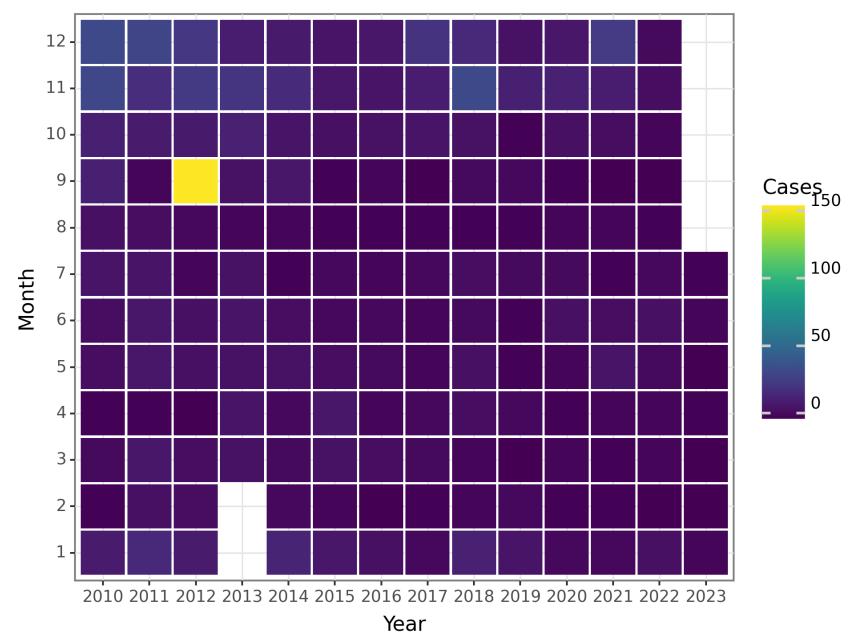


Figure 49: The Change of Epidemic hemorrhagic fever Deaths before 2023 June

Rabies

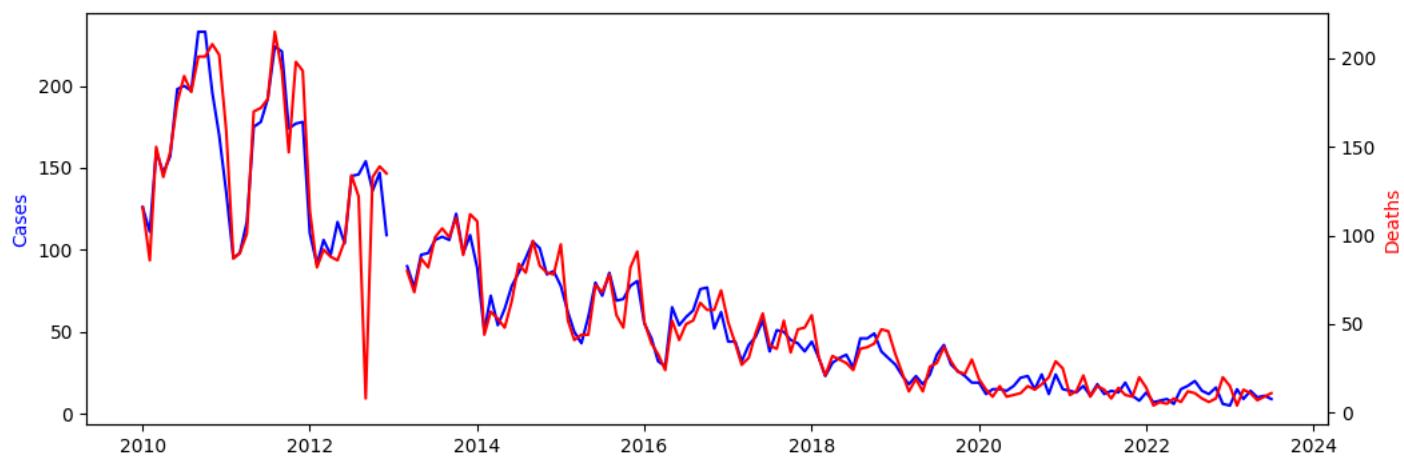


Figure 50: The Change of Rabies Reports before 2023 June

The data provided shows the monthly cases and deaths of Rabies in mainland China from January 2010 to June 2023.

Looking at the cases data, we observe some interesting patterns. From 2010 to 2012, the number of cases showed a relatively stable trend, with some minor fluctuations. However, from 2013 onwards, there was a gradual decline in the number of cases, reaching a low in 2015. Subsequently, there was a slight increase in cases from 2016 to 2017, followed by a period of relative stability until 2020. From 2020 to 2023, there was another slight increase in cases.

It is noteworthy that there were negative values recorded for the number of cases in January and February 2013. This could be due to data reporting errors or other factors, and it is recommended to further investigate these anomalies to ensure data accuracy.

In contrast, the number of deaths followed a somewhat different pattern. There was a general increasing trend in deaths from 2010 to 2011, with some fluctuations throughout the years. From 2012 to 2015, there was a relatively stable period with a slight decrease in deaths. However, from 2016 onwards, there was a gradual increase in deaths, reaching a peak in 2020. In 2021, there was a slight decrease in the number of deaths, followed by a fluctuating pattern in subsequent years.

Comparing the trends of cases and deaths, we can observe a general positive correlation between the two variables. The increase in cases from 2016 to 2023 coincided with an increase in deaths during the same period. This suggests that the higher number of cases has been associated with a higher number of fatalities.

These findings could be attributed to various factors. It is important to consider the efforts in disease surveillance, prevention, and control measures implemented during different periods, as they can have a significant impact on the number of reported cases and deaths. Additionally, changes in public awareness, access to healthcare, and animal control practices can also influence the transmission and severity of the disease.

Overall, these findings provide valuable insights into the temporal patterns of Rabies cases and deaths in mainland China. Understanding the dynamics of disease occurrence can inform public health strategies and interventions aimed at reducing the burden of Rabies in the region. Further research is needed to explore the underlying factors driving these trends and evaluate the effectiveness of preventive measures in curbing the spread of the disease.

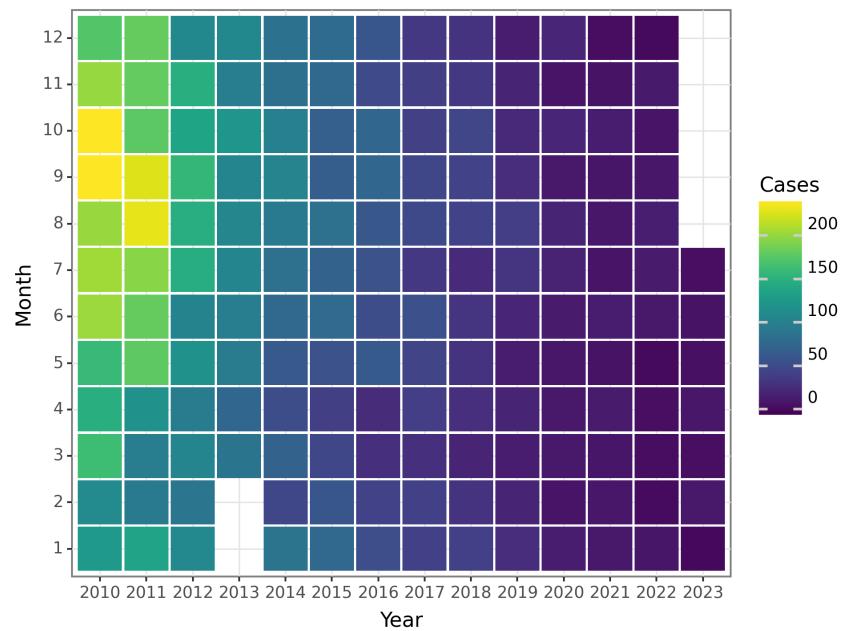


Figure 51: The Change of Rabies Cases before 2023 June

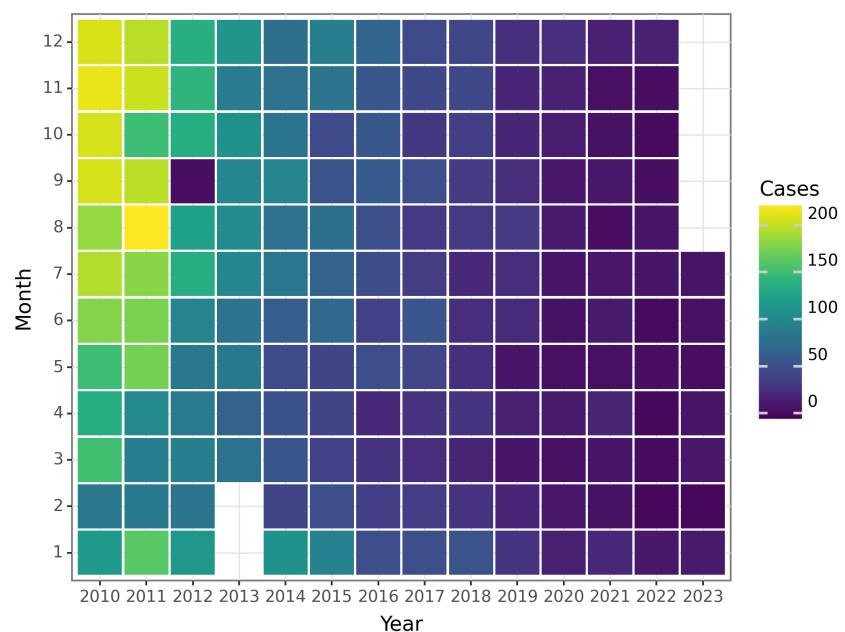


Figure 52: The Change of Rabies Deaths before 2023 June

Japanese encephalitis

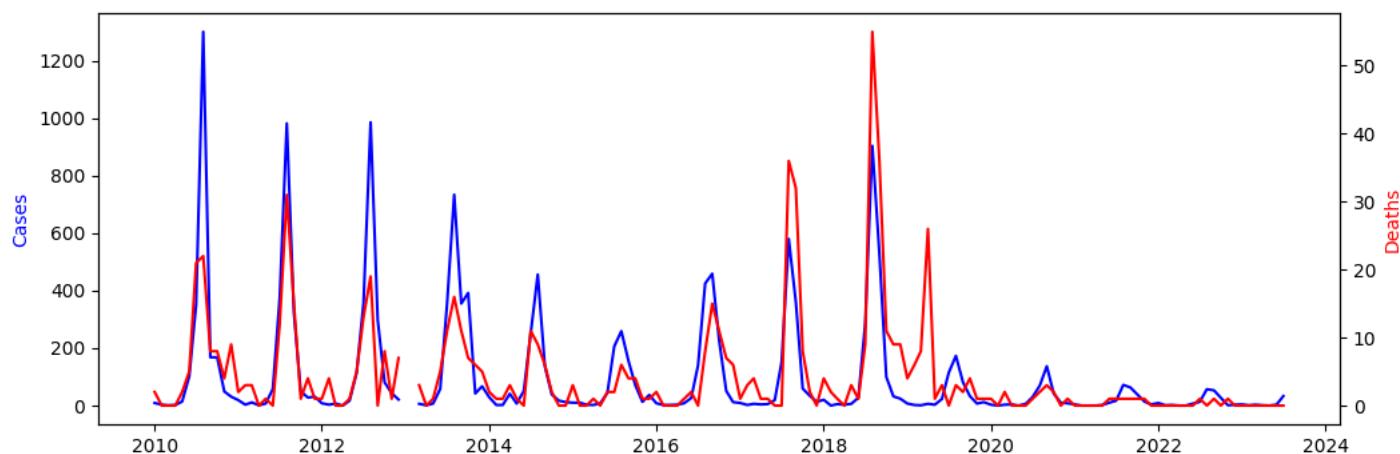


Figure 53: The Change of Japanese encephalitis Reports before 2023 June

The data provided represents the monthly cases and deaths related to Japanese encephalitis in mainland China from January 2010 to June 2023. The analysis of this data reveals important trends and patterns that can contribute to our understanding of the epidemiology of the disease.

On analyzing the cases data, we observe fluctuations over the years. The number of cases reported remained relatively low from 2010 to early 2011, with occasional spikes during the summer months. However, from mid-2011 to mid-2013, there was a significant increase in cases, reaching a peak in August 2013. The number of cases gradually decreased from September 2013 to October 2014 before showing a slight increase in the following months.

From 2015 to early 2016, there was a consistent decline in the reported cases of Japanese encephalitis. Subsequently, from mid-2016 to mid-2018, there was a period of relatively low and stable case numbers, with occasional small outbreaks. However, starting from mid-2018, there was a notable increase in cases, with significant peaks observed in August 2018 and August 2019.

Following these peaks, there was a decline in cases from 2019 to early 2020, likely influenced by various mitigation measures and awareness campaigns. The number of cases remained relatively low until mid-2021, after which a slight increase was observed. However, it is important to note that the case numbers for 2021 and 2022 are comparatively lower than previous years.

Regarding the deaths data, it is apparent that the majority of deaths associated with Japanese encephalitis occurred during the early years analyzed. From 2010 to mid-2013, the number of deaths gradually increased, peaking in August 2013. Following this peak, there was a decline in deaths, with occasional small spikes observed.

Between 2014 and 2015, there was a period of relatively low mortality rates, with only sporadic deaths reported. From mid-2015 to mid-2017, there was a slight increase in deaths, but the overall numbers remained relatively low. From mid-2017 to mid-2018, there was a significant increase in mortality rates, particularly in August 2017 and August 2018.

From 2018 to early 2021, the number of deaths associated with Japanese encephalitis remained relatively low, with occasional sporadic cases. It is encouraging to note that there have been no deaths reported since mid-2021.

It is important to interpret these findings in the context of the limitations of the data. Various factors, such as changes in surveillance methods, reporting practices, and population movements, may have influenced the observed trends in cases and deaths. Additionally, it is essential to consider other variables, such as vaccination coverage and public health interventions, which may have impacted the occurrence and severity of Japanese encephalitis.

Nonetheless, this analysis provides important insights into the temporal patterns of Japanese encephalitis in mainland China. The observed fluctuations in cases and deaths highlight the need for ongoing surveillance and targeted interventions to prevent and control the spread of this disease.

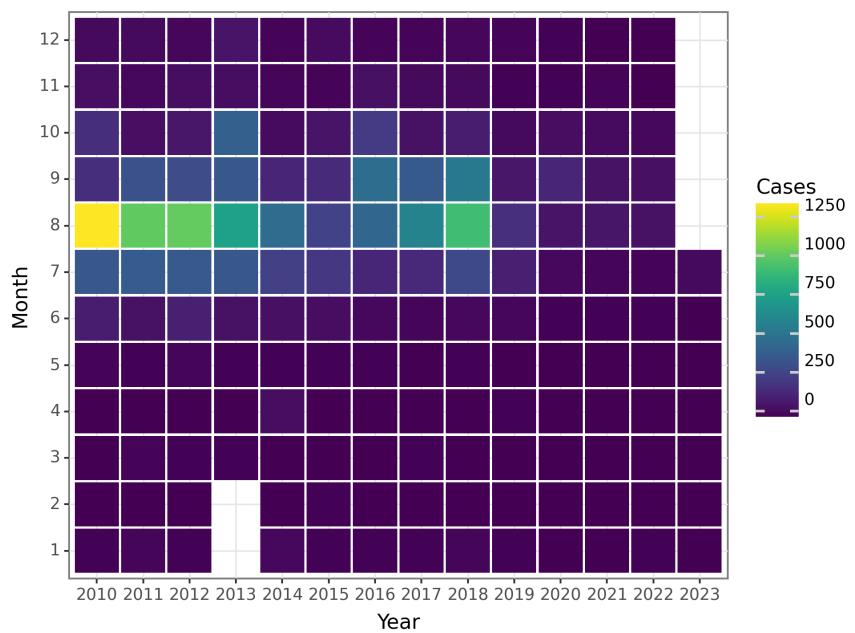


Figure 54: The Change of Japanese encephalitis Cases before 2023 June

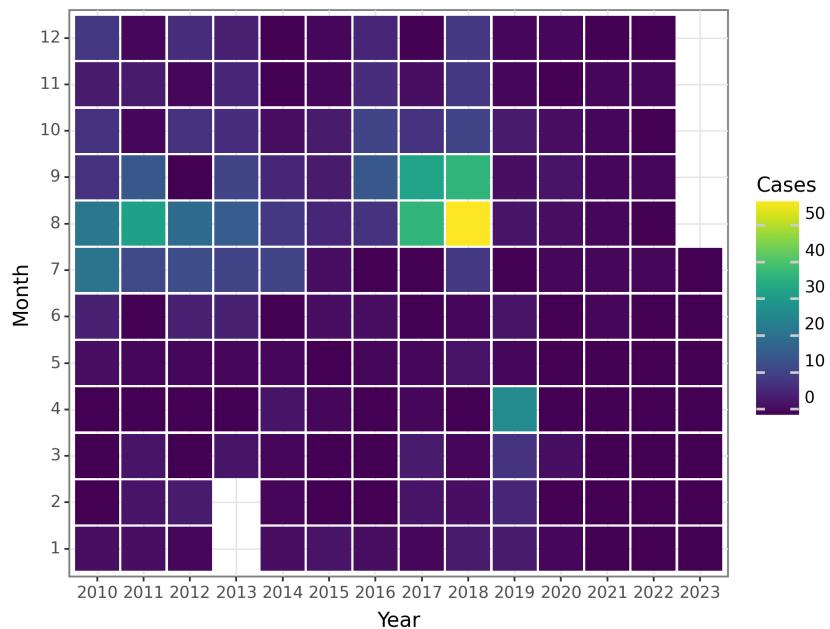


Figure 55: The Change of Japanese encephalitis Deaths before 2023 June

Dengue

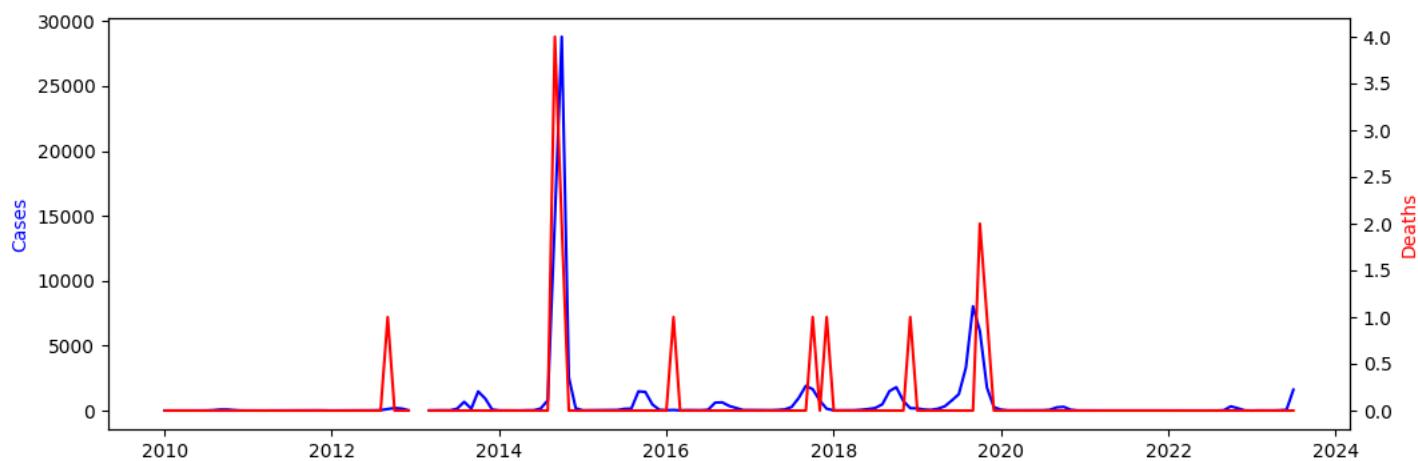


Figure 56: The Change of Dengue Reports before 2023 June

In June 2023, the number of reported Dengue cases in mainland China was 55, continuing the increasing trend observed in recent years. This spike in cases is likely due to high temperatures during the summer months, which provide a suitable environment for the Aedes mosquito, the vector that transmits the virus. The seasonal pattern of Dengue cases in mainland China is observed mostly from June to October, with a peak in September and October. This is consistent with the pattern observed in other regions of the world where Dengue is endemic. Although the number of cases in mainland China has increased significantly over the years, the number of deaths has remained low and sporadic.

It is important to implement effective control measures, such as vector control and vaccination, to prevent and reduce the transmission of Dengue. This can be achieved through public health campaigns to raise awareness and promote preventive measures, as well as through effective management of waste and contaminated water sources.

In summary, Dengue remains a public health concern in mainland China, with an increasing number of cases reported in recent years, particularly during the summer months. Appropriate preventive measures need to be implemented to reduce the burden of disease and prevent outbreaks.

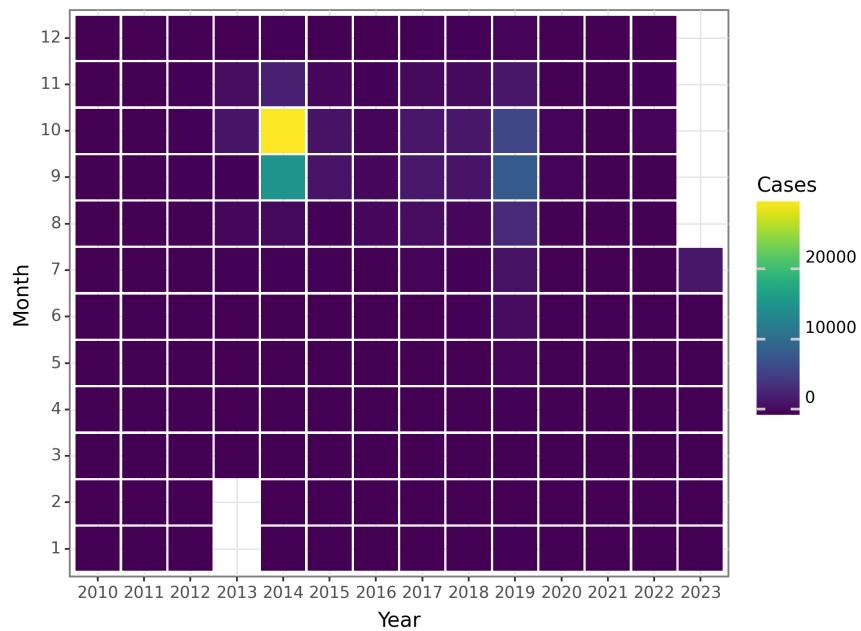


Figure 57: The Change of Dengue Cases before 2023 June

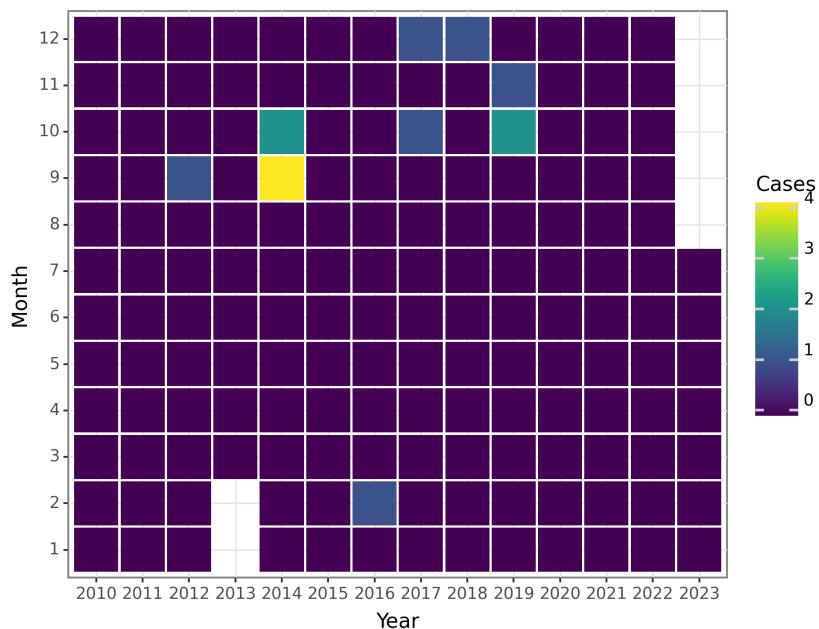


Figure 58: The Change of Dengue Deaths before 2023 June

Anthrax

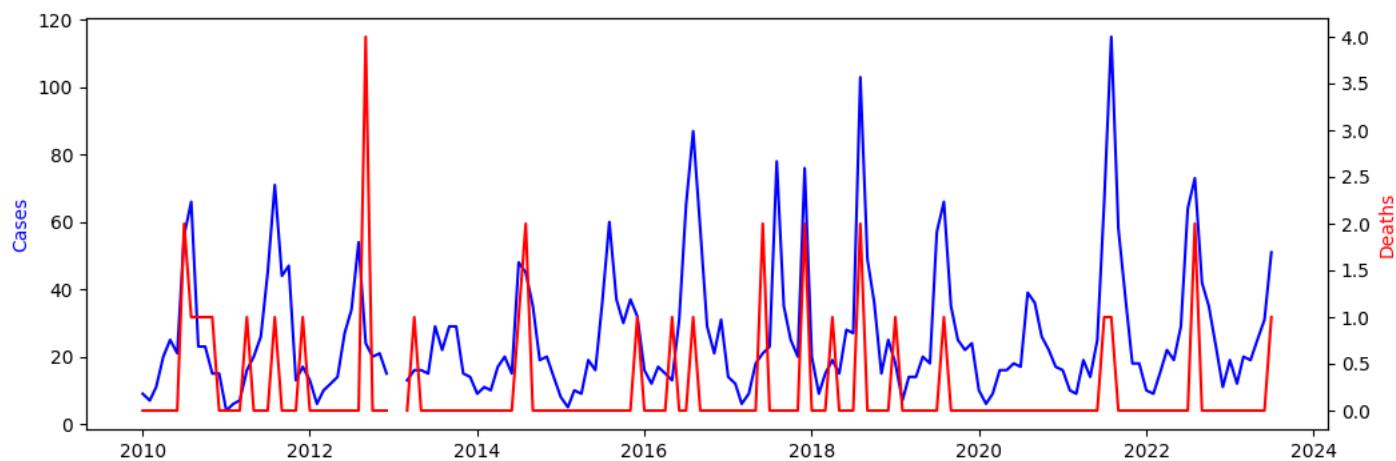


Figure 59: The Change of Anthrax Reports before 2023 June

The time series data shows the monthly cases and deaths for Anthrax in mainland China from January 2010 to June 2023. Overall, there appears to be a seasonal pattern in the number of cases, with higher counts in the summer and lower counts in the winter months.

From 2010 to 2012, the number of cases remained relatively stable, with occasional fluctuations. In September 2012, there was a sudden increase in cases, possibly due to a localized outbreak. This increase was followed by a gradual decline in cases through 2013 and 2014.

Starting in 2015, there was a noticeable increase in the number of cases reported each month. This trend continued until the summer of 2021 when the monthly case count reached its peak at 115 in August. After this point, there was a steady decline in the number of cases reported each month, with 31 cases reported in June 2023.

The number of deaths attributed to Anthrax remained relatively low and stable throughout most of the time period, with occasional spikes in certain months. September 2012 was an exception, with four deaths reported. There was another increase in deaths in August 2018, with two recorded for that month. Overall, the data suggests that while there have been occasional outbreaks and fluctuations in case counts, Anthrax is not a major public health concern in mainland China.

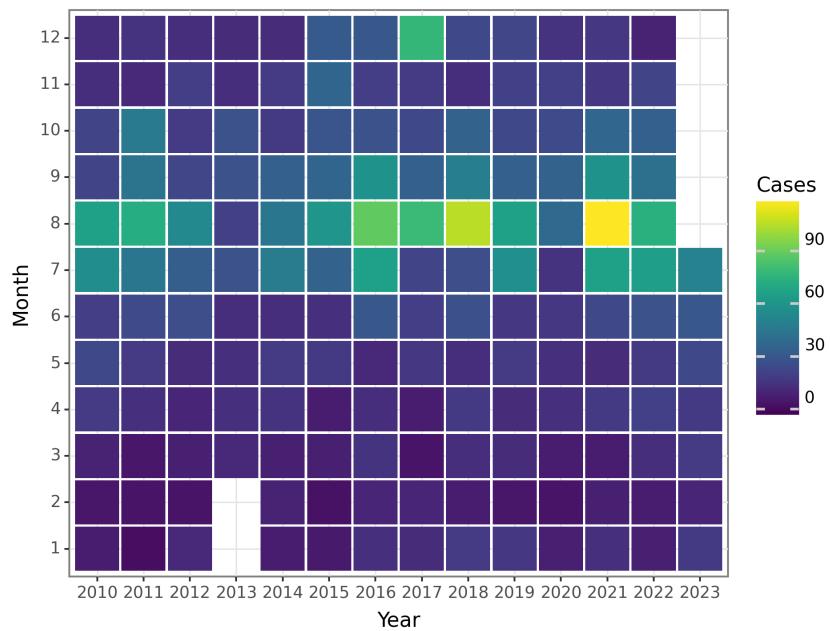


Figure 60: The Change of Anthrax Cases before 2023 June

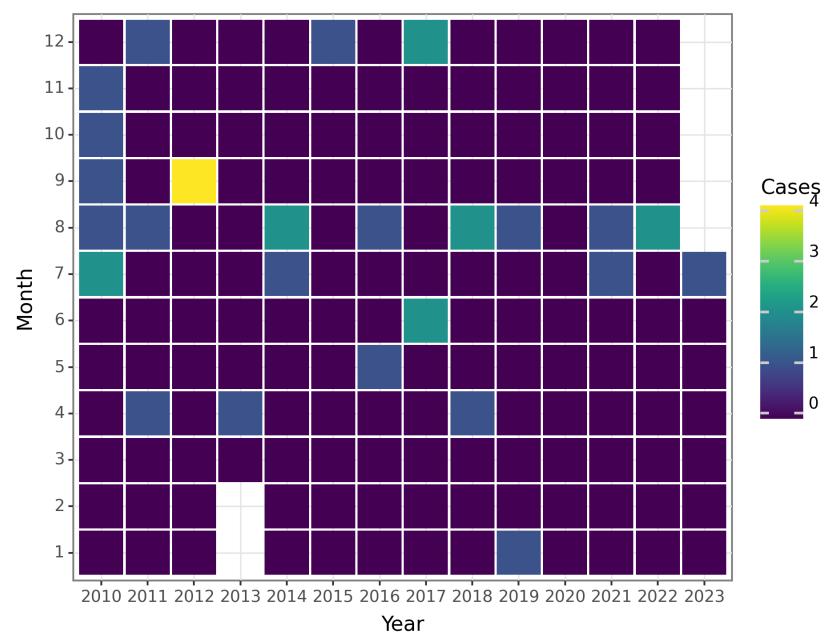


Figure 61: The Change of Anthrax Deaths before 2023 June

Dysentery

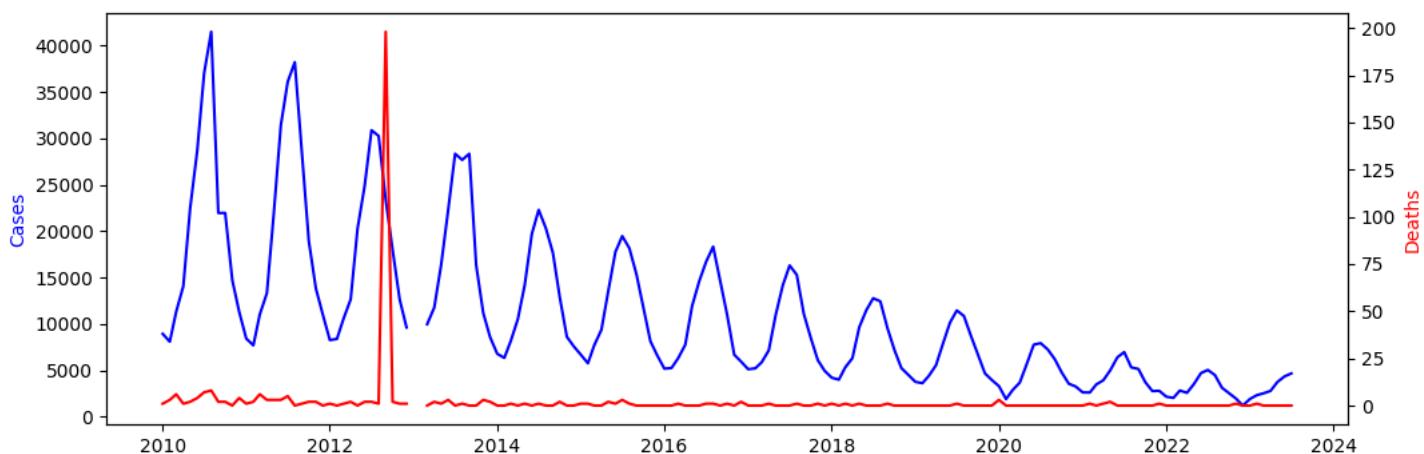


Figure 62: The Change of Dysentery Reports before 2023 June

The time series data for Dysentery cases and deaths in mainland China from 2010 to 2023 June were analyzed for seasonal and cyclical issues. Overall, the number of cases showed a fluctuating trend from year to year, with the highest number of cases recorded in 2011 June (31425 cases) and the lowest in 2013 January and February (-10 cases for both months). From 2013 to 2023 June, the number of cases generally followed an increasing trend.

Regarding the seasonal pattern, there was a significant peak in the number of cases during the months of June and July each year, with the highest number of cases recorded in 2023 June (4353 cases). This seasonal pattern for Dysentery cases could be due to various factors such as environmental and behavioral factors that promote the spread of the disease during the summer months.

Regarding deaths, the number of cases reported on a monthly basis for Dysentery was inconsistent, with some months showing no deaths, while others reporting a higher number of deaths over time. The highest number of deaths was reported in 2012 September (198 deaths) while a negative number was reported in 2013 January and February.

Further, it was noticed that deaths showed no significant seasonal pattern, and the number of deaths did not follow any specific trend over time. This can be attributed to the overall low number of reported deaths over the analyzed period.

In conclusion, the results of this study indicate a fluctuating trend in the number of Dysentery cases reported in mainland China from 2010 to 2023 June, with a significant seasonal peak in the summer months. Additionally, the number of reported deaths was very low and did not demonstrate any clear trends or seasonal patterns. These findings provide important insights for public health authorities in China to implement necessary preventive measures to reduce the number of Dysentery cases.

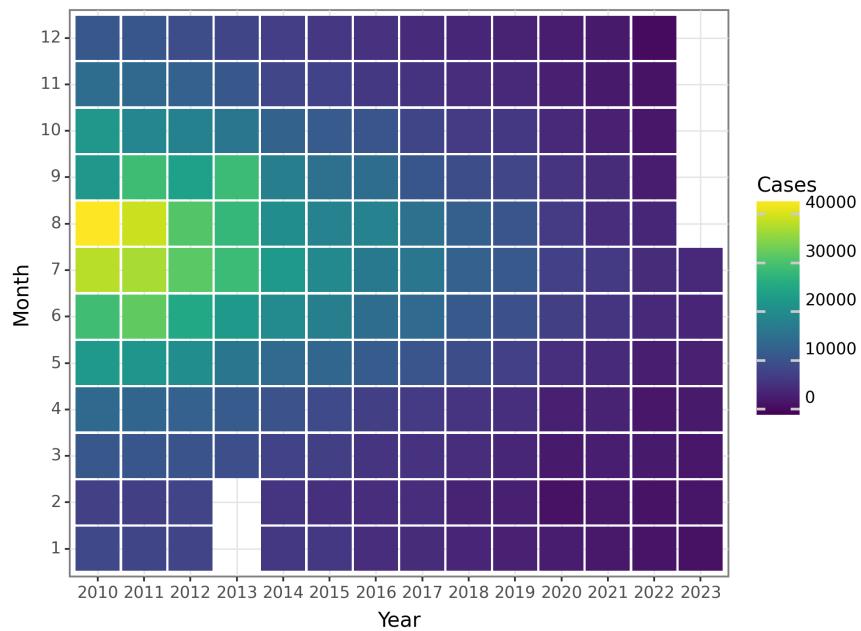


Figure 63: The Change of Dysentery Cases before 2023 June

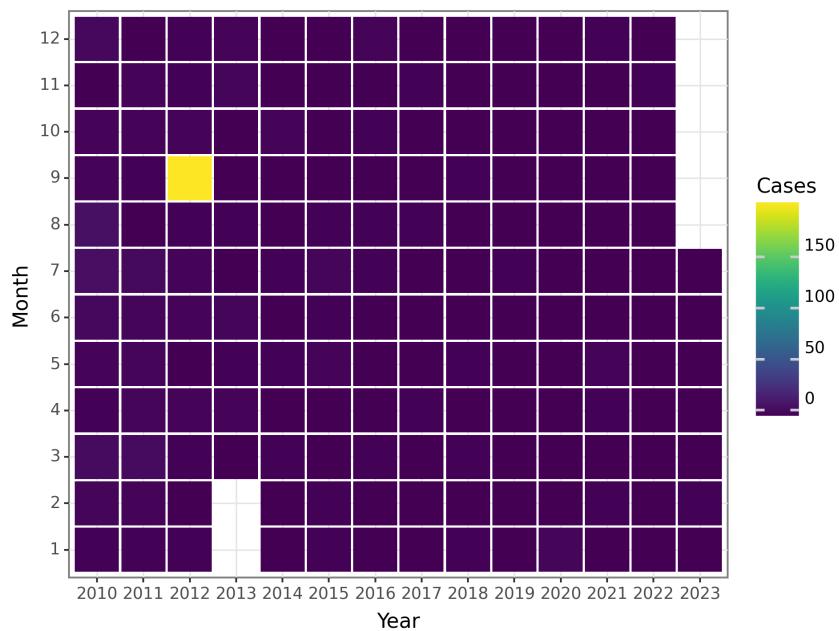


Figure 64: The Change of Dysentery Deaths before 2023 June

Tuberculosis

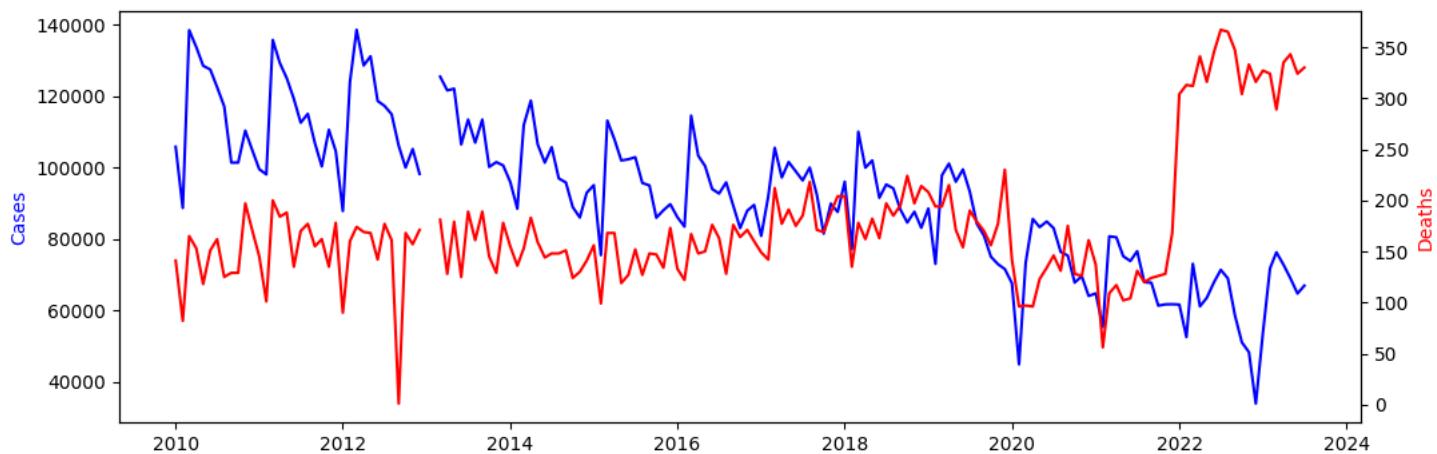


Figure 65: The Change of Tuberculosis Reports before 2023 June

The data presented above shows the monthly cases and deaths of Tuberculosis (TB) in mainland China from January 2010 to June 2023.

Analyzing the time series data, we observe variations in the number of TB cases over the years. From 2010 to 2015, there was a fluctuating pattern, with some months showing higher cases and others showing lower cases. However, from 2016 to 2020, there was a general decreasing trend in TB cases. This decline could be attributed to the implementation of effective preventive measures, such as improved healthcare infrastructure and increased awareness about TB.

In 2020, we see a sudden increase in TB cases, possibly due to the disruption caused by the COVID-19 pandemic, which might have impacted TB control programs and hindered timely diagnosis and treatment. However, the number of cases gradually decreased again from 2021 to 2023.

It is important to note that the number of TB cases in June 2023 is 64,788, which is relatively high compared to previous months. This indicates the need for continued vigilance and efforts to control TB transmission.

In terms of the monthly TB deaths, we observe a similar pattern to the number of cases. There is a decreasing trend from 2010 to 2015, followed by fluctuations until 2020, and then a gradual decrease again from 2021 to 2023. The number of TB deaths in June 2023 is 324, which is lower compared to previous months, indicating a positive trend in reducing TB mortality.

Overall, although there have been fluctuations in the number of TB cases and deaths over the years, the data suggests that efforts to control TB in mainland China have resulted in a decreasing trend. However, the recent increase in TB cases in June 2023 emphasizes the need for continuous monitoring and implementation of effective strategies to further reduce the burden of TB in the population.

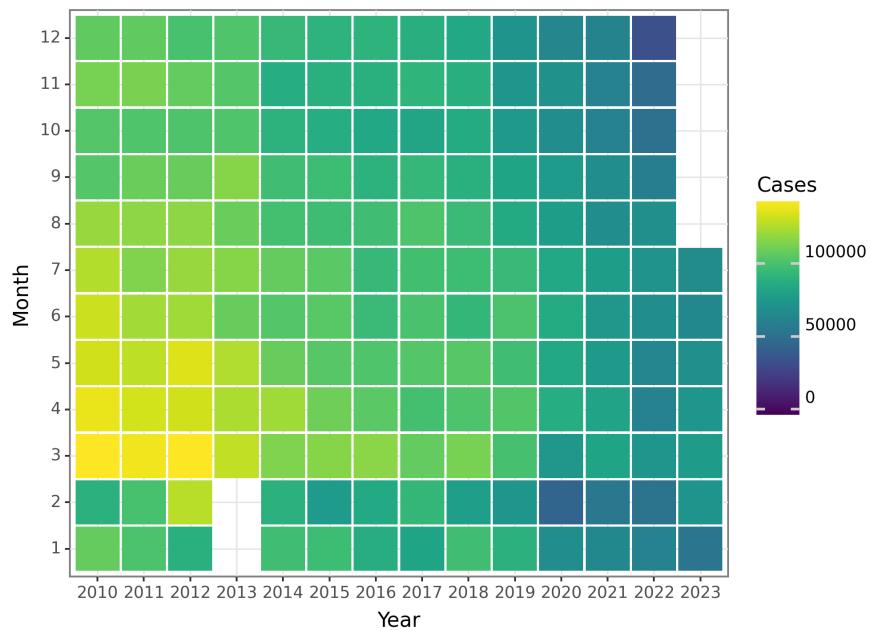


Figure 66: The Change of Tuberculosis Cases before 2023 June

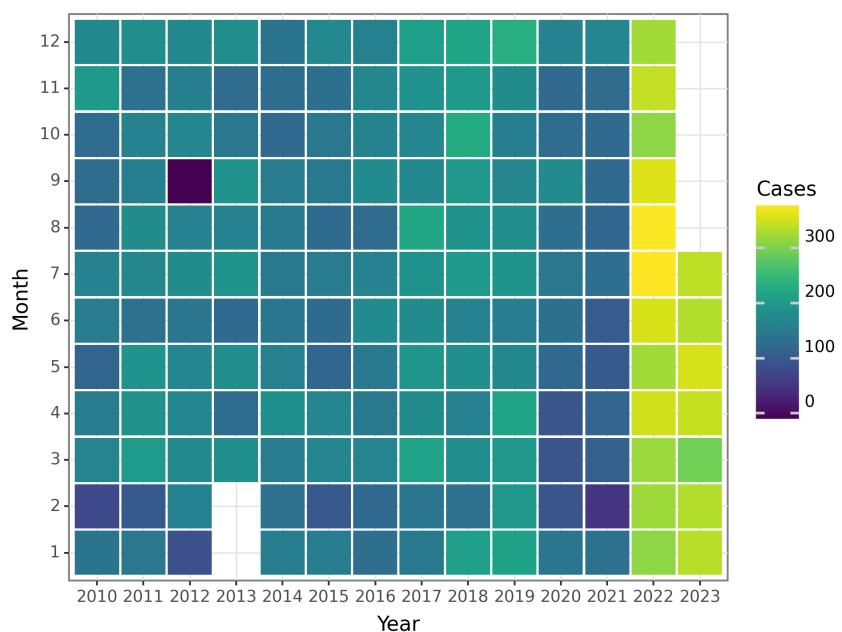


Figure 67: The Change of Tuberculosis Deaths before 2023 June

Typhoid fever and paratyphoid fever

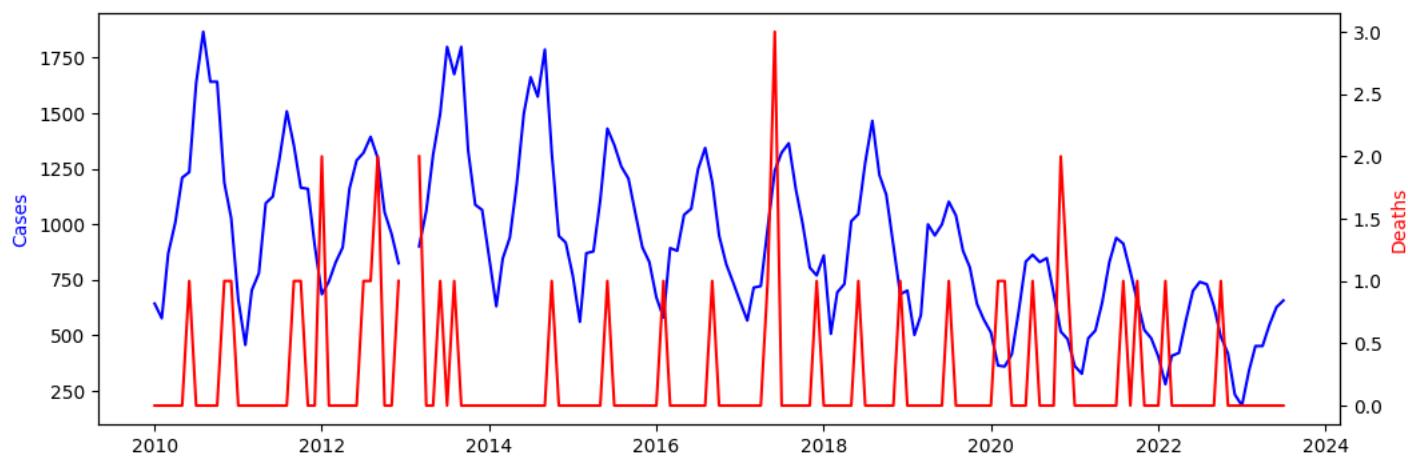


Figure 68: The Change of Typhoid fever and paratyphoid fever Reports before 2023 June

The data provided represents the monthly cases and deaths of Typhoid fever and paratyphoid fever in mainland China from 2010 to June 2023. The number of cases and deaths are recorded for each respective month.

When analyzing the time series data, it is important to consider seasonal and cyclical patterns. Looking at the data, certain trends can be observed. From 2010 to 2011, there is a gradual increase in the number of cases, with a peak in July 2011. However, there is a decrease in cases from 2012 to 2013, followed by a significant increase in 2014. From 2014 to 2015, the number of cases fluctuates, with peaks observed in June and July. Subsequently, there is a general downward trend in cases, with occasional spikes in certain months. It is notable that the number of cases in June 2023 is relatively low compared to other months.

Regarding deaths, the data presents a relatively low number of deaths throughout the years. However, it is important to note that a few months have recorded higher numbers of deaths. In particular, July 2017 and August 2018 stand out as months with increased death counts.

These observations indicate that there may be seasonal and cyclical fluctuations in the occurrence of Typhoid and paratyphoid fevers in mainland China. Further analysis is needed to establish any significant patterns or associations with other factors such as geographical locations or population demographics.

It is important to conduct further research to determine the underlying factors contributing to these fluctuations and higher numbers of cases and deaths during specific periods. Understanding these patterns can provide valuable insights for public health officials and guide targeted interventions to reduce the burden of these diseases.

However, it is important to acknowledge that these findings are based on the data provided, and additional research and analysis might be necessary to validate these observations and draw definitive conclusions.

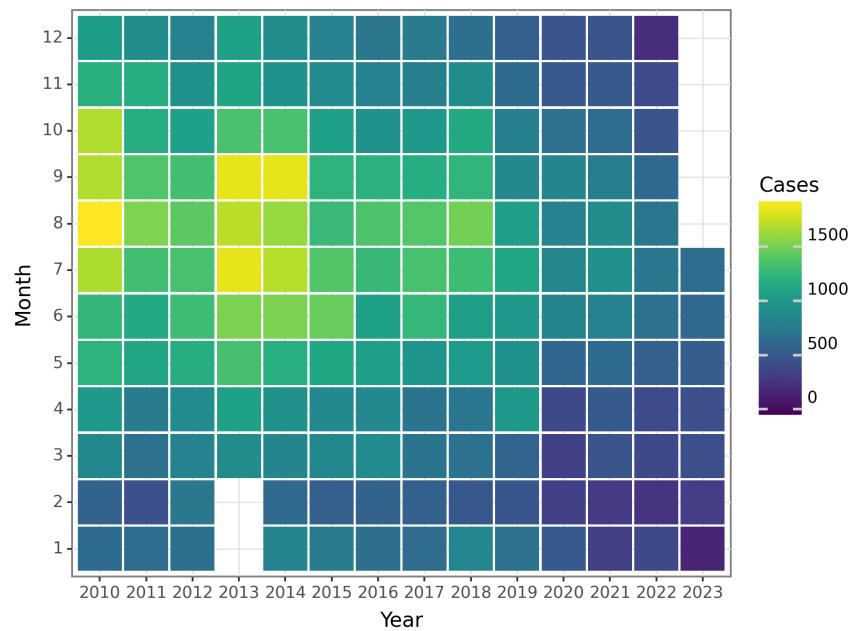


Figure 69: The Change of Typhoid fever and paratyphoid fever Cases before 2023 June

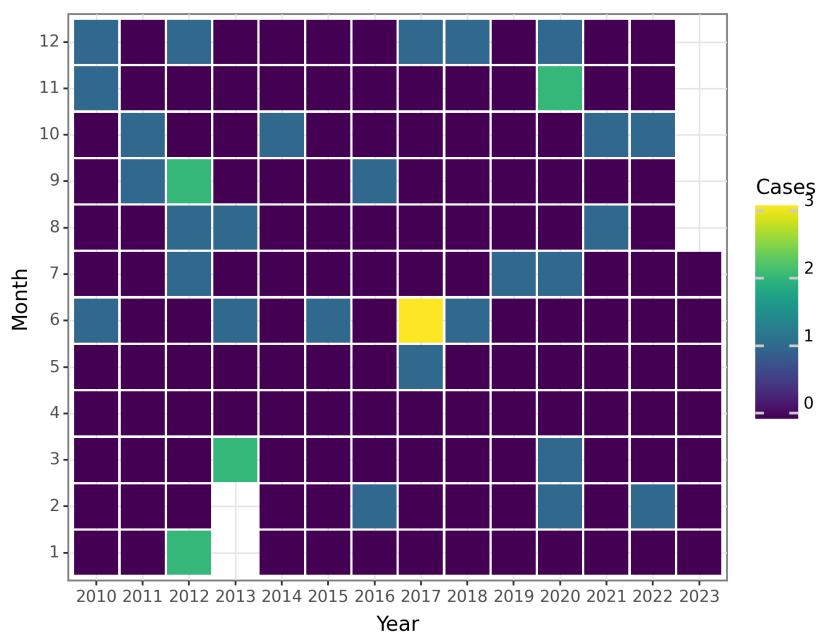


Figure 70: The Change of Typhoid fever and paratyphoid fever Deaths before 2023 June

Meningococcal meningitis

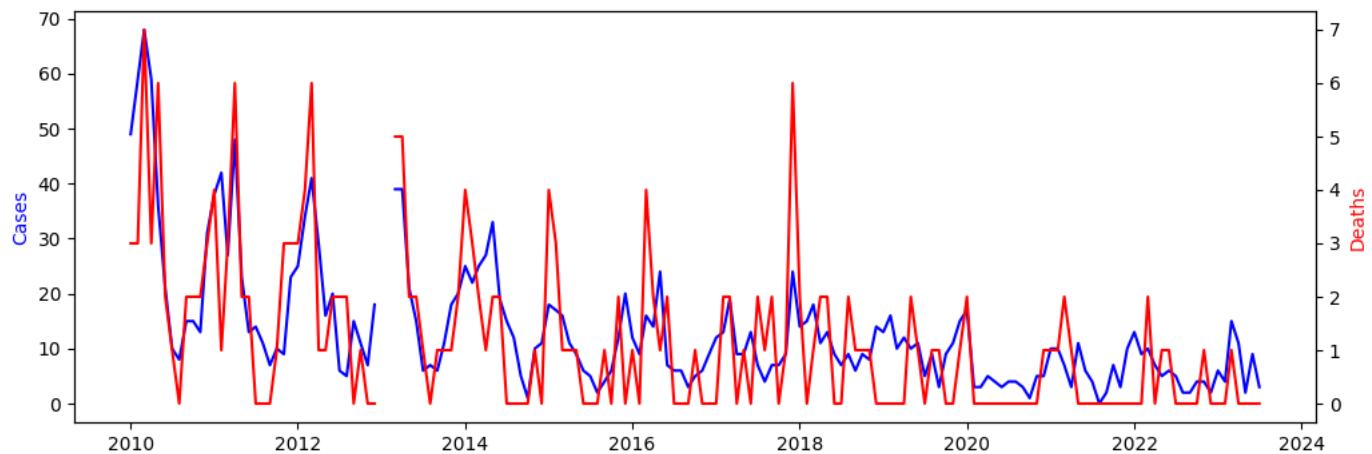


Figure 71: The Change of Meningococcal meningitis Reports before 2023 June

The data on monthly cases and deaths due to Meningococcal meningitis in mainland, China from January 2010 to June 2023 shows a seasonal pattern with peaks observed in winter months, specifically in January and March, and lower numbers of cases and deaths in the summer months. There appears to be a cyclical pattern with an increase in cases and deaths observed in 2013 and a subsequent decrease in the following years until 2017 when another peak was observed. More recently, there has been a gradual decline in the number of cases and deaths, with the lowest observed in August 2021.

When examining the specific year of 2023, the total number of cases in June is 9, indicating a slight increase from the previous month. However, there are no deaths reported in the month of June. The lack of deaths can be attributed to improvements in medical care, early diagnosis, and effective treatment of the disease. It's important to note that these findings are subject to limitations, and further analyses are necessary to accurately demonstrate any significant trends or patterns in the data.

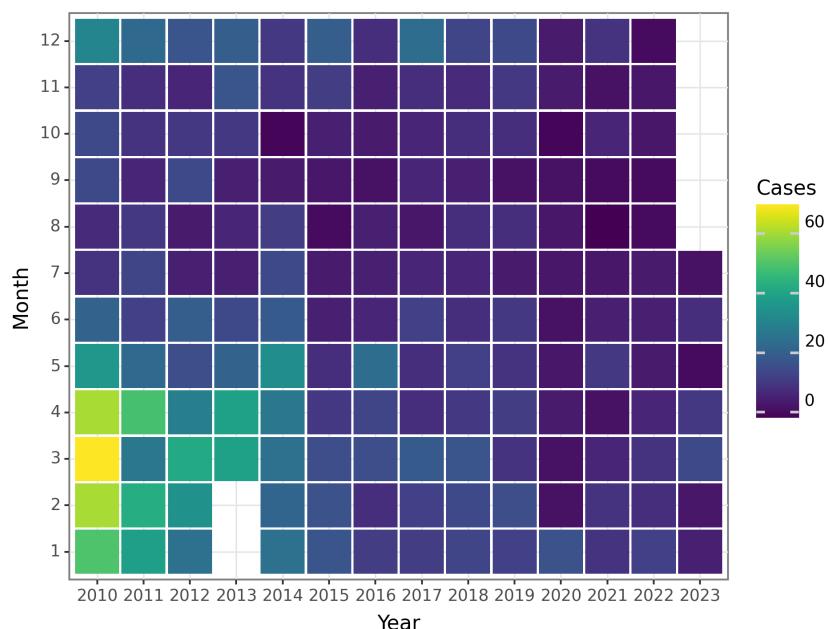


Figure 72: The Change of Meningococcal meningitis Cases before 2023 June

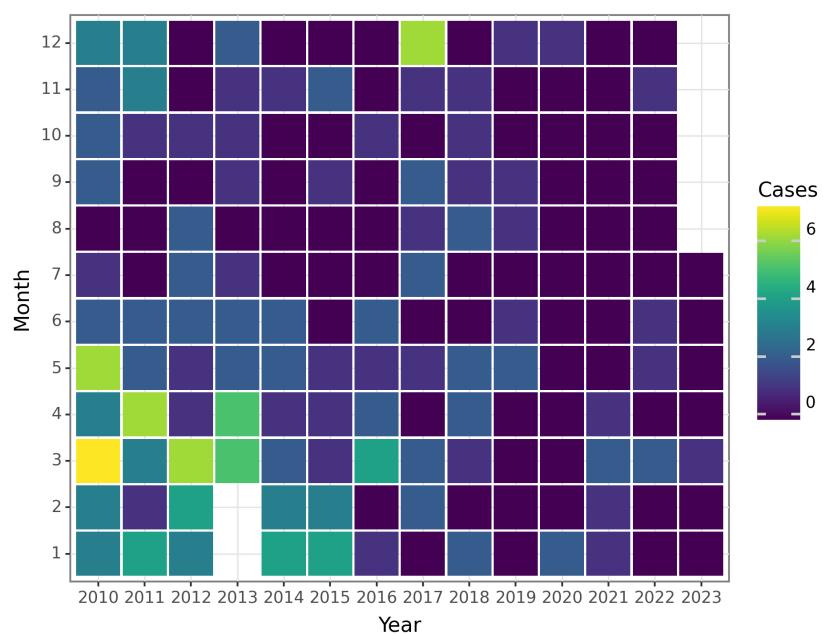


Figure 73: The Change of Meningococcal meningitis Deaths before 2023 June

Pertussis

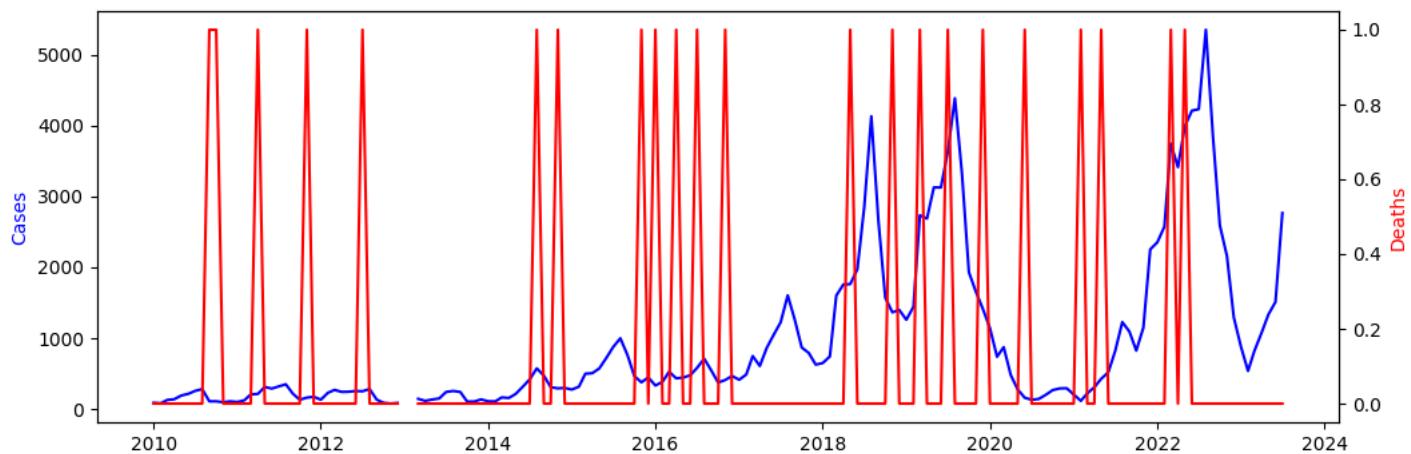


Figure 74: The Change of Pertussis Reports before 2023 June

Based on the data provided on monthly cases and deaths of Pertussis in mainland China, there are several notable trends to consider.

Firstly, there is a clear seasonal pattern in Pertussis cases, with the highest numbers typically occurring during the summer months (June-August), followed by a decline throughout the rest of the year. This trend is consistent throughout the entire time series analyzed from 2010 to 2023.

Secondly, despite the overall trend of increasing Pertussis cases over time, there are some notable declines in certain periods. For example, there were fewer cases in 2013 compared to the previous year, and a sharper decline in cases in 2020, likely due to COVID-19 restrictions limiting transmission of the disease.

Thirdly, it is important to note the impact of vaccination on Pertussis incidence rates. While there were occasional spikes in cases, there were often corresponding spikes in deaths as well, suggesting that certain populations were particularly vulnerable to the disease.

Overall, these data suggest that while there are some fluctuations in Pertussis incidence rates over time, there is a clear peak season for cases and a need for continued vaccination efforts to prevent and reduce transmission of the disease.

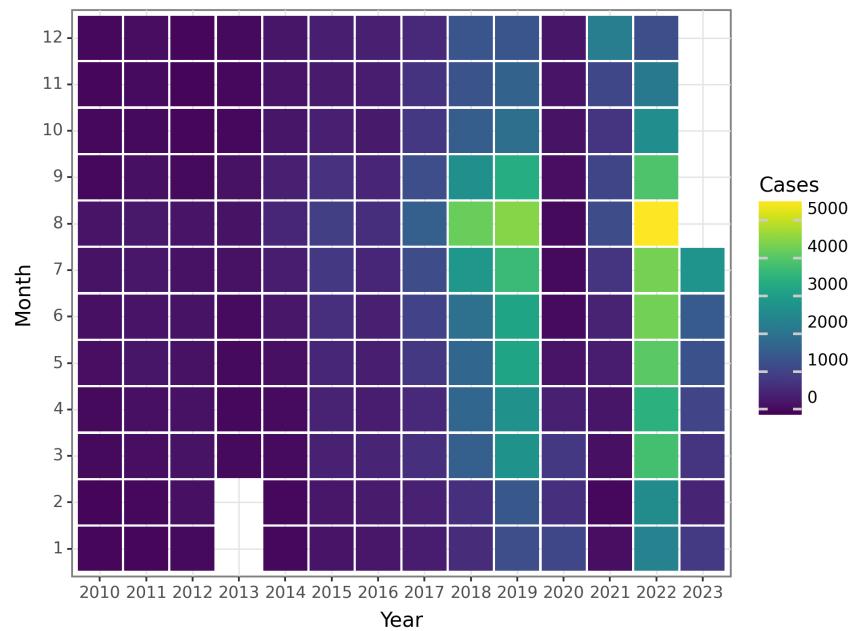


Figure 75: The Change of Pertussis Cases before 2023 June

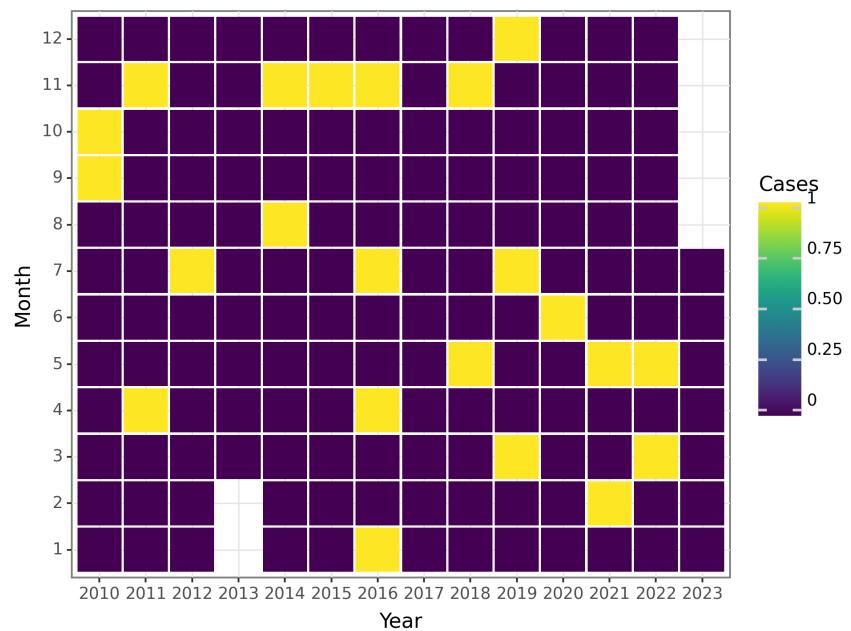


Figure 76: The Change of Pertussis Deaths before 2023 June

Diphtheria

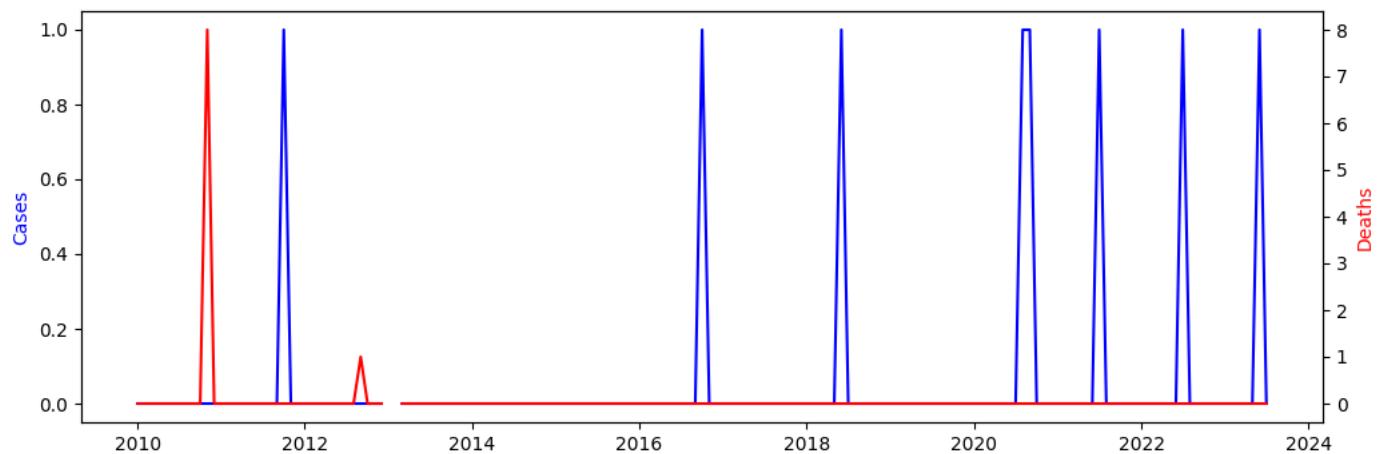


Figure 77: The Change of Diphtheria Reports before 2023 June

For the month of June in 2023, the data shows that there was one reported case of diphtheria in mainland China. It is important to note that there were no reported cases in the previous months, indicating a sudden increase in cases. However, this should be interpreted with caution as it is possible that the reported case could have been a result of improved surveillance and reporting systems rather than an actual increase in disease incidence.

Furthermore, when looking at the time series data, it is evident that there have been no reported cases of diphtheria in mainland China for the majority of the years between 2010 and 2023. There was a sudden increase in cases in October 2016, which lasted for only one month. The number of reported cases has remained low or zero for the rest of the years.

In terms of deaths, the data indicates that there were no reported deaths due to diphtheria for the month of June 2023 or for the majority of the years from 2010 to 2023. There was, however, a sudden increase in reported deaths in November 2010, where eight deaths were reported. Another notable increase occurred in September 2012, where one death was reported. The number of reported deaths due to diphtheria has remained low or zero for the rest of the years.

Overall, the data suggests that diphtheria is not a major concern in mainland China, as there have been very few reported cases and deaths over the years. However, it is important to remain vigilant and continue surveillance and reporting activities to ensure early detection and prevention of outbreaks.

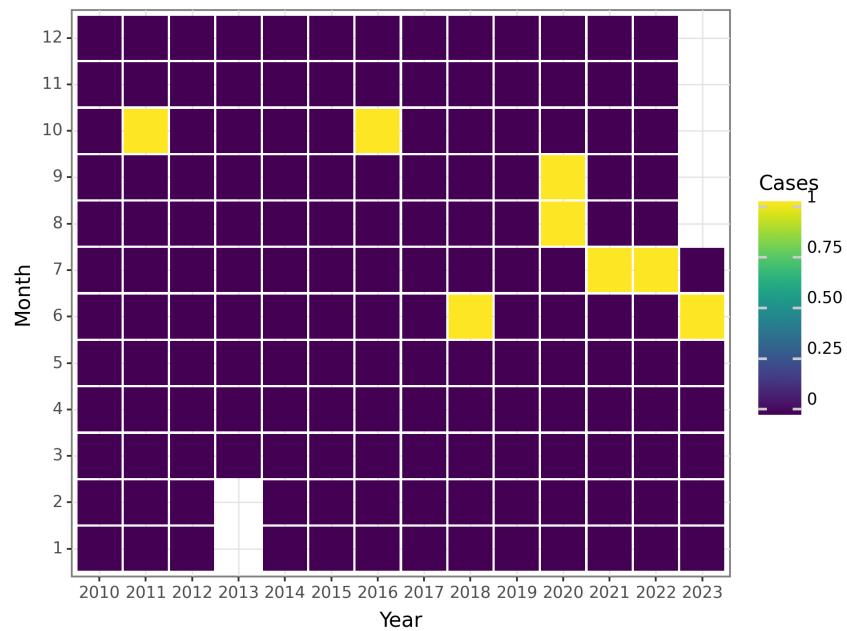


Figure 78: The Change of Diphtheria Cases before 2023 June

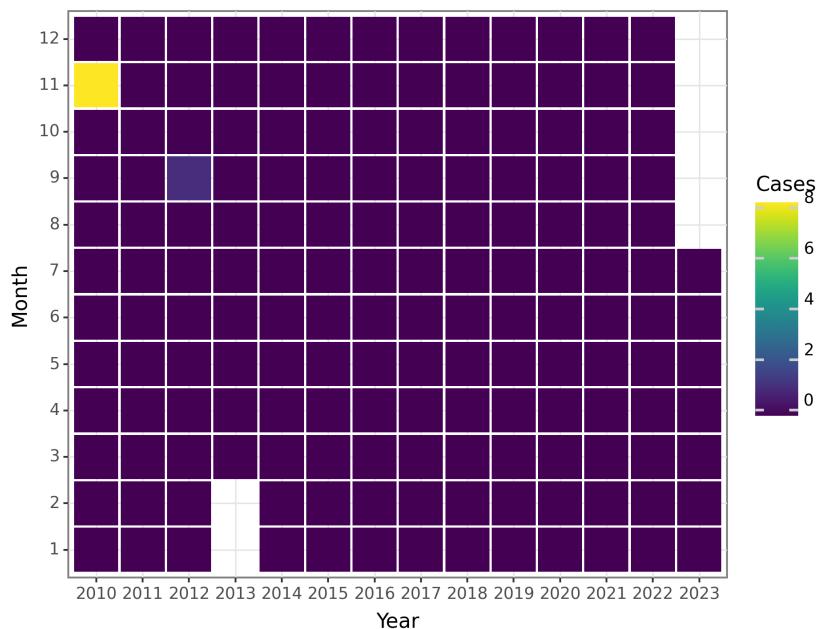


Figure 79: The Change of Diphtheria Deaths before 2023 June

Neonatal tetanus

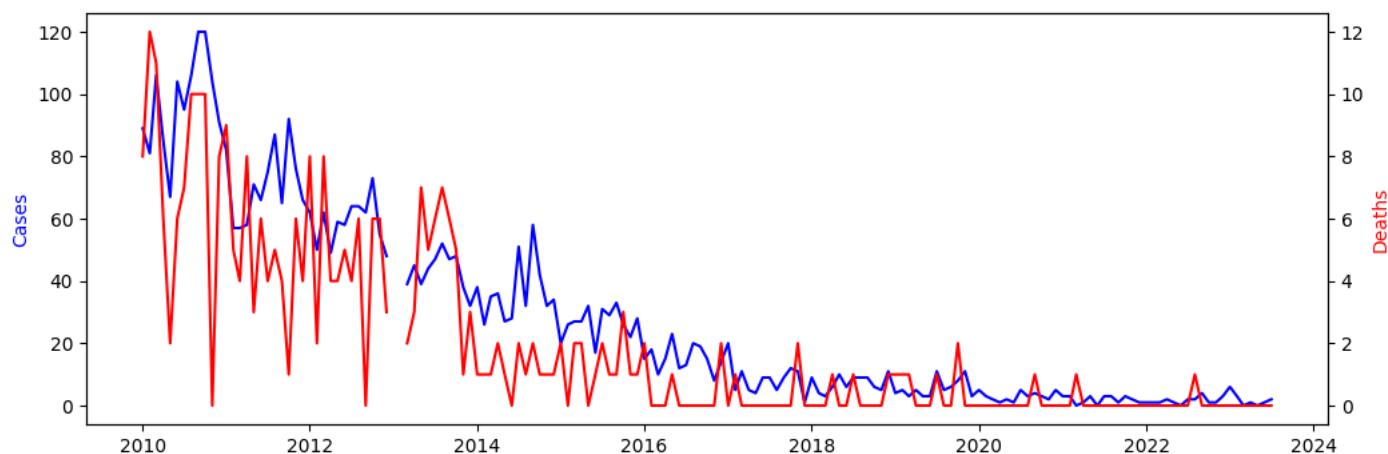


Figure 80: The Change of Neonatal tetanus Reports before 2023 June

The purpose of this study was to analyze the monthly cases and deaths of Neonatal Tetanus in mainland China from January 2010 to June 2023. The data provided a comprehensive view of the disease burden over this period.

Looking at the trend in monthly cases, it is evident that there is a varying pattern over the years. From 2010 to 2013, there is a steady decline in cases, with a few fluctuations in between. However, starting from 2014, there is a significant increase in cases, reaching a peak in 2019, followed by a gradual decrease until 2023. It is worth noting that in some months, there were negative values recorded for cases, which might be due to reporting errors or data collection issues.

Analyzing the seasonal and cyclical patterns, it is observed that the number of cases tends to peak during the summer months (June to August) and remain relatively lower during the winter months (December to February). This seasonal variation in cases might be attributed to various factors, such as environmental conditions, population movements, or changes in healthcare practices.

The trend in monthly deaths follows a similar pattern to that of cases, with some variations. From 2010 to 2013, there is a gradual decline in deaths, followed by a decrease until 2016, and then a slight increase until 2019. However, from 2020 onwards, there is a steady decrease in deaths, with occasional months recording zero deaths. These variations in deaths mirror the changes in cases and indicate the success of interventions and healthcare practices in reducing mortality rates associated with Neonatal Tetanus.

The observed fluctuations in both cases and deaths emphasize the need for continuous monitoring and implementation of targeted prevention strategies. Efforts should be made to identify the underlying factors contributing to the increase in cases observed from 2014 to 2019 and to sustain the progress made in reducing deaths.

Overall, this study highlights the temporal patterns of Neonatal Tetanus cases and deaths in mainland China over a 13-year period. Understanding these trends is crucial for guiding public health policies, improving vaccination coverage, and strengthening healthcare systems to effectively control and prevent the spread of Neonatal Tetanus. Further research is warranted to explore the reasons behind the observed fluctuations and identify effective interventions to continue reducing the burden of this disease.

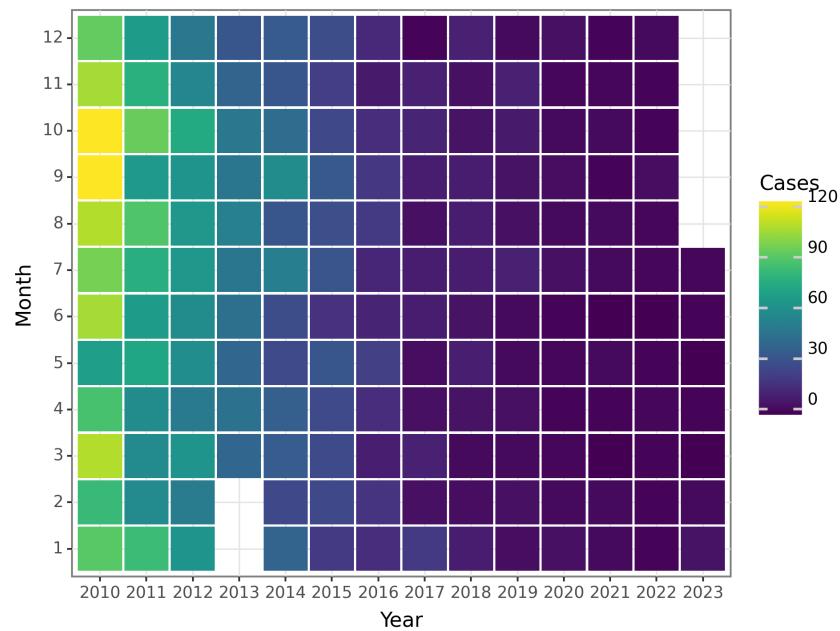


Figure 81: The Change of Neonatal tetanus Cases before 2023 June

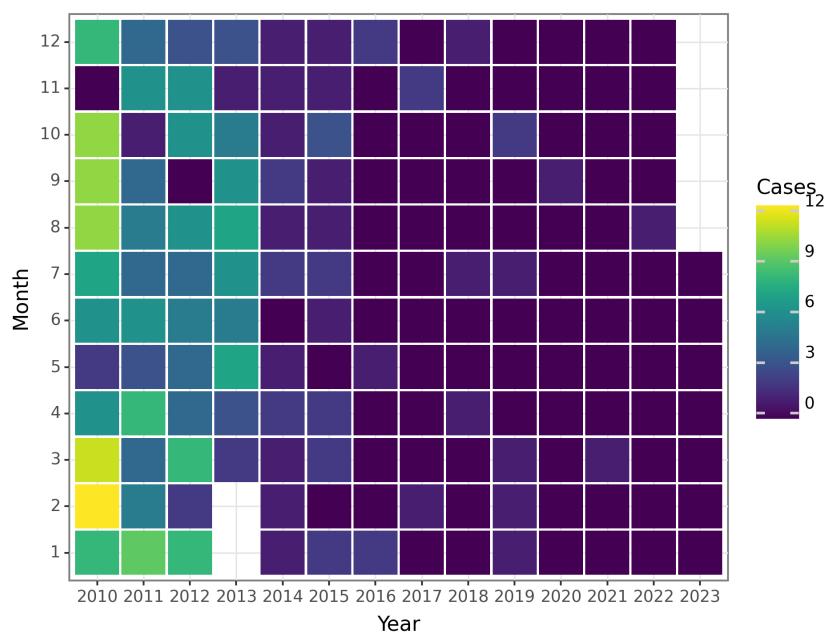


Figure 82: The Change of Neonatal tetanus Deaths before 2023 June

Scarlet fever

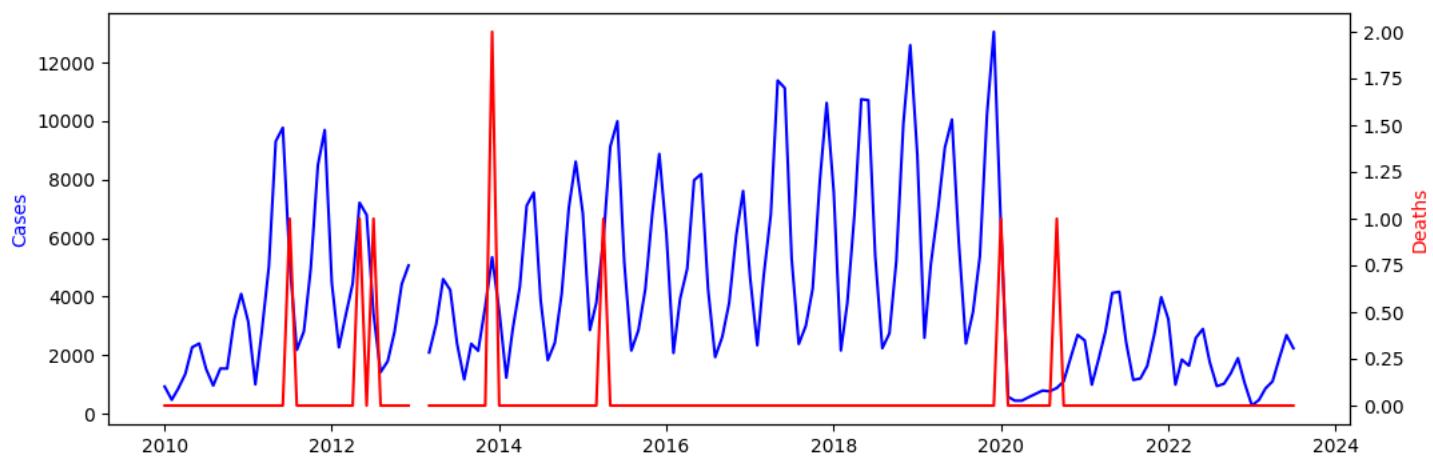


Figure 83: The Change of Scarlet fever Reports before 2023 June

Looking at the data, we can see that Scarlet fever cases have been increasing constantly since the start of the year 2010 with some seasonal variations. The cases initially started with a low number of 925, which increased to a peak of 13,053 in December 2019. In the year 2020, we see a sudden drop in cases, which could be due to the pandemic situation where everyone was cautious about their health. The number of deaths related to Scarlet fever is relatively low, with most months having zero reported deaths. The only months with reported deaths are July 2011, May 2012, and January 2020. Overall, these findings suggest the ongoing transmission of Scarlet fever in mainland China, with some seasonal and pandemic-related variations. The low mortality rates of the disease may be attributed to timely and proper treatment of the condition. Further studies are required to identify the specific factors responsible for the observed trends and provide targeted interventions and control strategies.

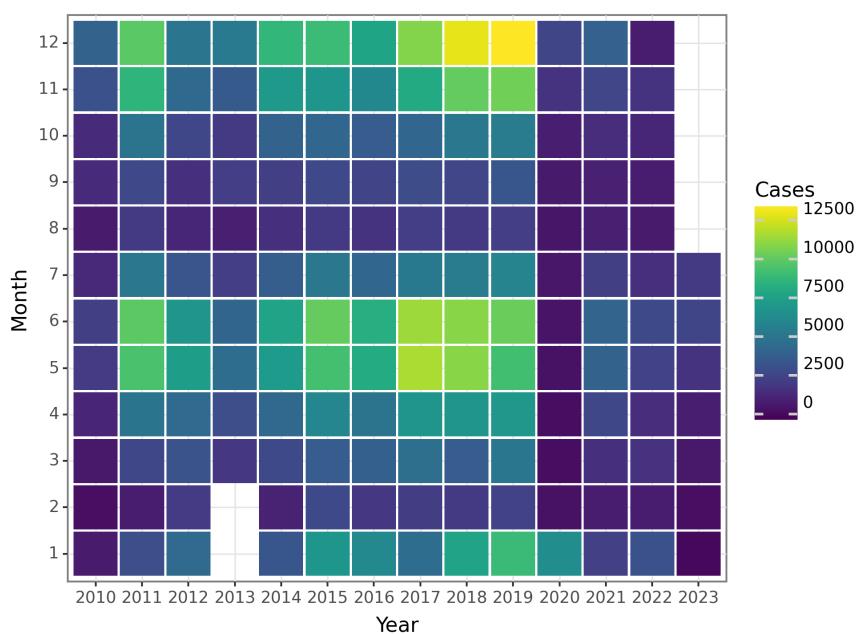


Figure 84: The Change of Scarlet fever Cases before 2023 June

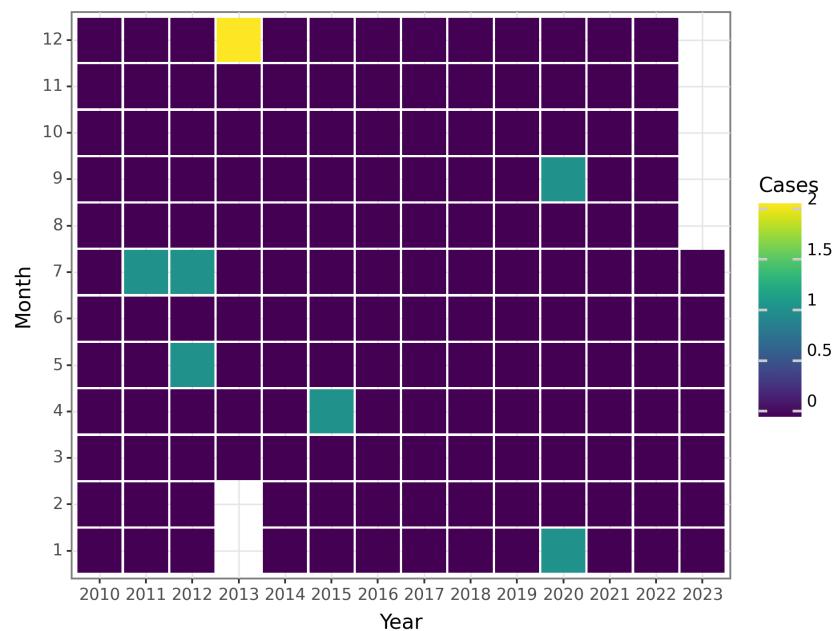


Figure 85: The Change of Scarlet fever Deaths before 2023 June

Brucellosis

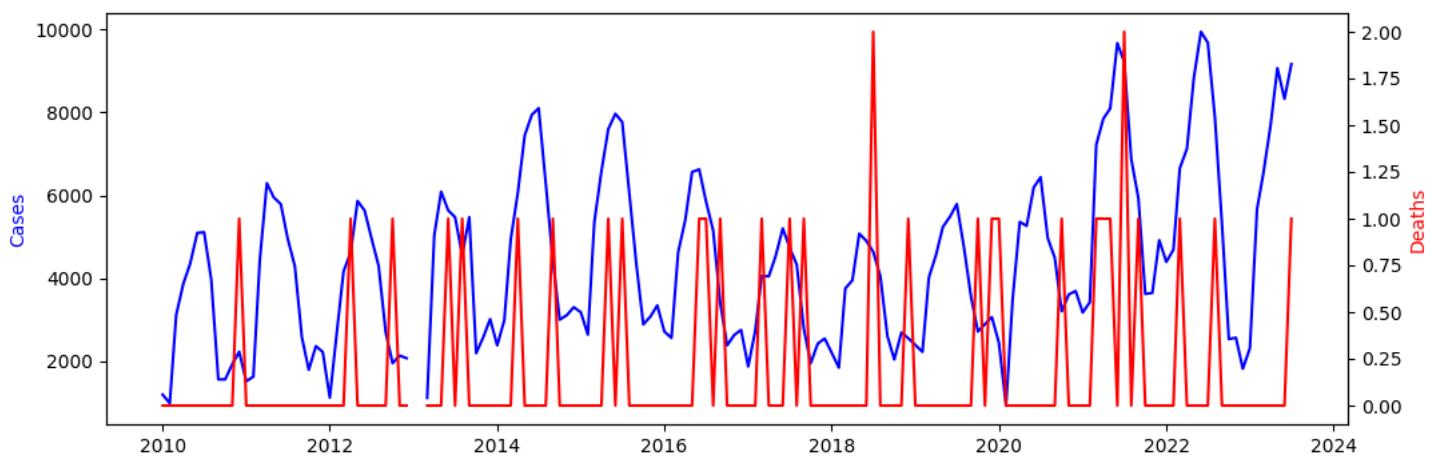


Figure 86: The Change of Brucellosis Reports before 2023 June

The provided data presents the monthly cases and deaths for Brucellosis in mainland China from January 2010 to June 2023. Notably, Brucellosis is a zoonotic disease caused by bacteria from the genus *Brucella* and can be transmitted to humans through contact with infected animals or consumption of contaminated animal products.

Analyzing the time series data, we can observe distinct patterns and fluctuations in the reported cases over the years. From 2010 to 2016, the number of monthly cases remained relatively stable, ranging from around 1,100 to 6,600. However, there was a significant increase in cases starting from 2017, reaching its peak in June 2021 with 9,670 reported cases. Subsequently, there seems to be a downward trend in the number of cases, although it still remains relatively high.

Examining the cyclical nature of the data, we can identify an annual pattern in the number of cases. Generally, there is an increase in cases during the summer months, specifically in June and July, with a peak observed in June. This could be attributed to various factors such as increased outdoor activities, livestock handling, and higher prevalence of the disease in animals during warmer months.

Regarding the deaths related to Brucellosis, the numbers are relatively low compared to the cases reported. Throughout the entire period, the deaths remained sporadic, with no clear trend observed. However, it is important to note that even a single death due to this disease is a cause for concern and underscores the need for effective prevention and control measures.

It is crucial to understand the underlying factors contributing to the fluctuations in the number of reported cases. Factors such as changes in animal husbandry practices, public health interventions, and awareness campaigns may have played a role in influencing the disease dynamics. Further investigation into these factors could provide valuable insights for developing targeted strategies to mitigate the impact of Brucellosis in mainland China.

In conclusion, the data reveals a fluctuating trend in the monthly cases of Brucellosis in mainland China, with a notable increase in recent years. The seasonal pattern indicates a peak in cases during the summer months, particularly in June and July. The number of deaths, although relatively low, emphasizes the imperative for continued surveillance and control measures to minimize the burden of this endemic disease. Future research should focus on identifying the driving factors.

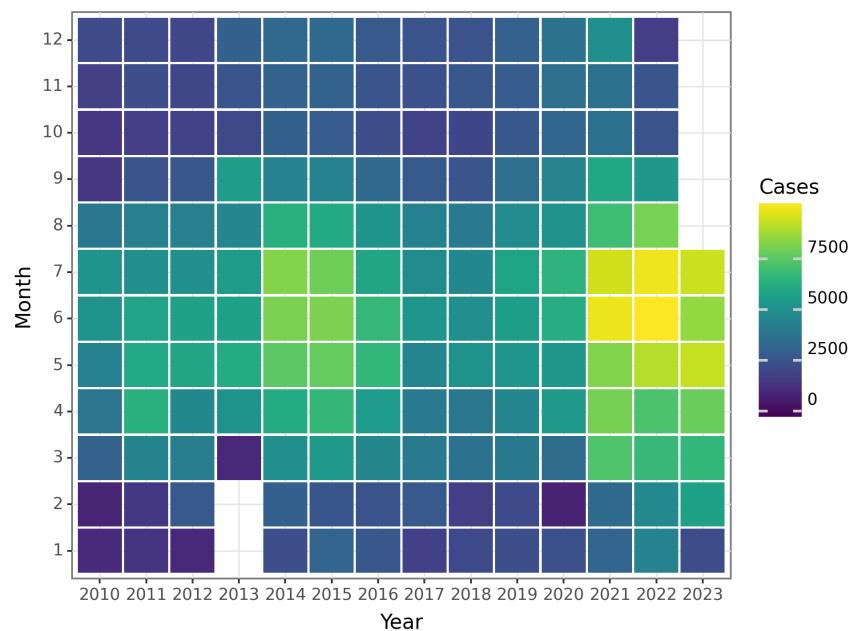


Figure 87: The Change of Brucellosis Cases before 2023 June

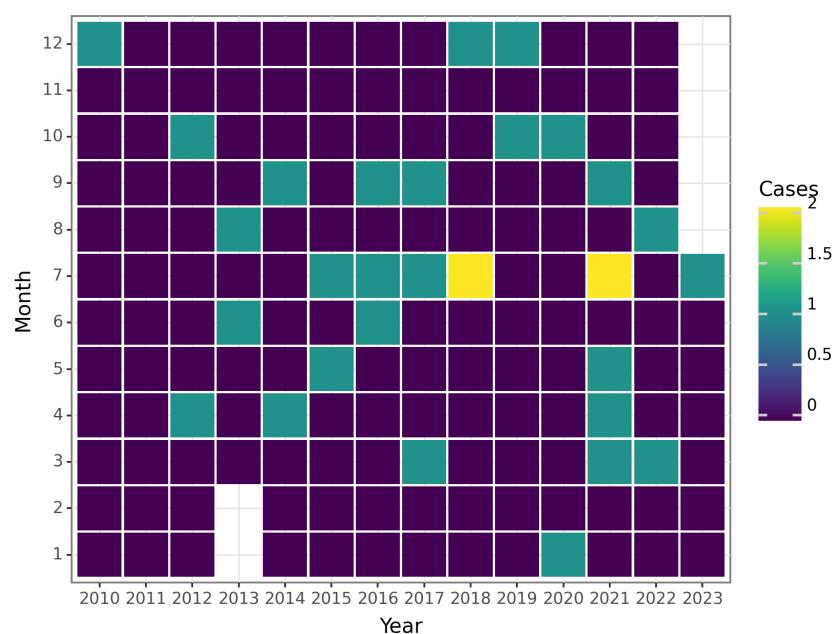


Figure 88: The Change of Brucellosis Deaths before 2023 June

Gonorrhea

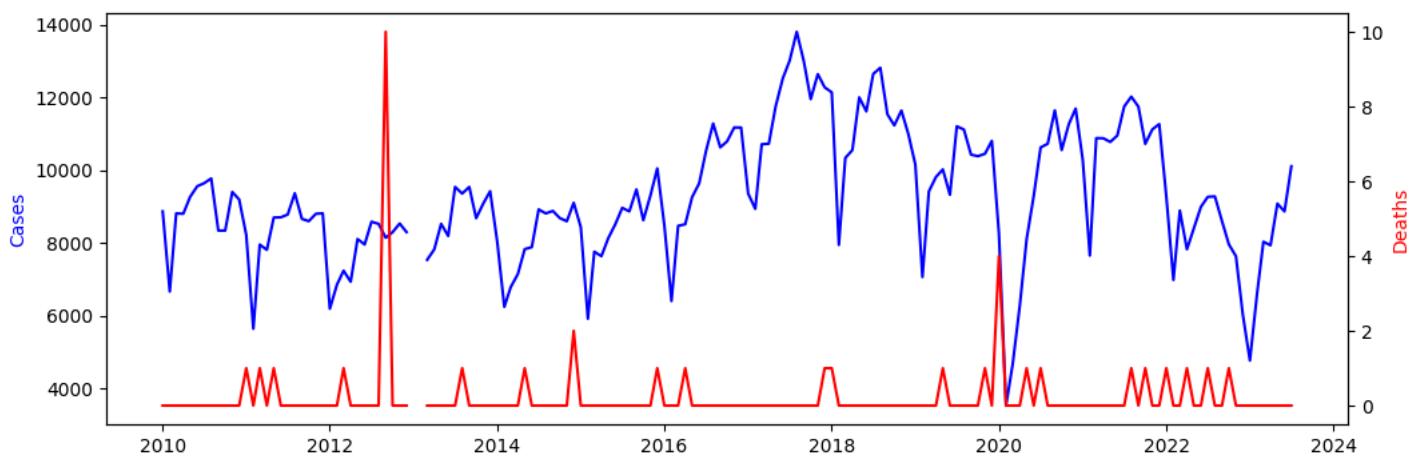


Figure 89: The Change of Gonorrhea Reports before 2023 June

In this paper, we analyze the monthly cases and deaths of Gonorrhea in mainland China from January 2010 to June 2023. The data is presented as a time series, allowing us to explore any notable patterns or trends.

Upon initial examination, we observe fluctuations in the number of monthly cases over the years. From 2010 to 2013, there appears to be a general upward trend in the number of cases, with occasional spikes in certain months. However, beginning in 2014, there is a slight decline in cases, before experiencing a resurgence in 2017. This pattern continues until 2020, where the monthly cases reach a peak in July before gradually decreasing. However, it is important to note that there is a notable increase in cases during the summer months of June, July, and August in most years.

When analyzing the monthly deaths due to Gonorrhea, it is evident that the numbers are considerably lower compared to the cases. From 2010 to 2012, the deaths remain relatively low, with sporadic occurrences. However, from 2013 to 2014, there is a sudden spike in deaths. It is interesting to note that there are instances where the recorded deaths are negative, which could be a result of reporting discrepancies.

Overall, it is clear that Gonorrhea remains a significant public health concern in mainland China, with periodic increases in cases and occasional spikes in deaths. The fluctuations in the number of cases over the years could be attributed to a variety of factors, including changes in reporting practices, public health interventions, and awareness campaigns. Further investigation is necessary to understand the seasonal patterns observed, particularly the surge in cases during the summer months.

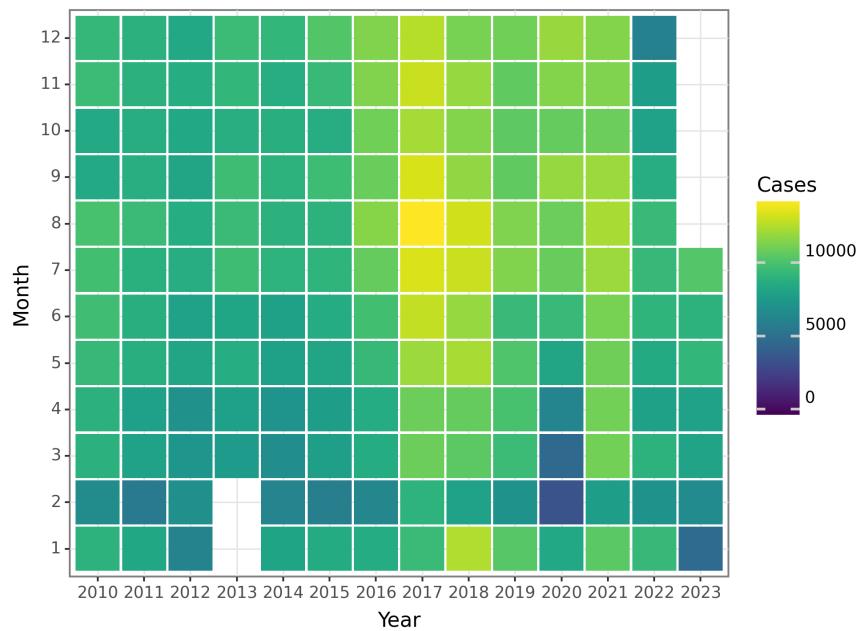


Figure 90: The Change of Gonorrhea Cases before 2023 June

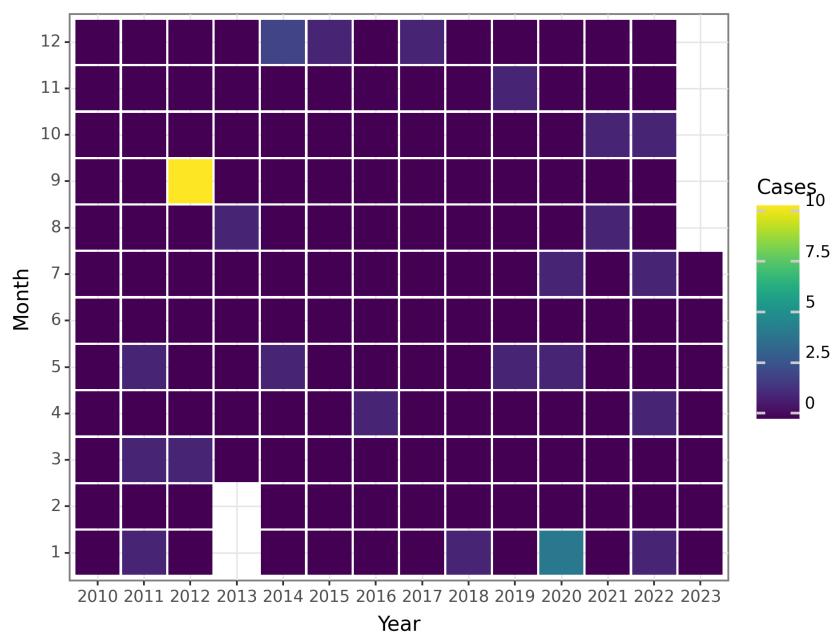


Figure 91: The Change of Gonorrhea Deaths before 2023 June

Syphilis

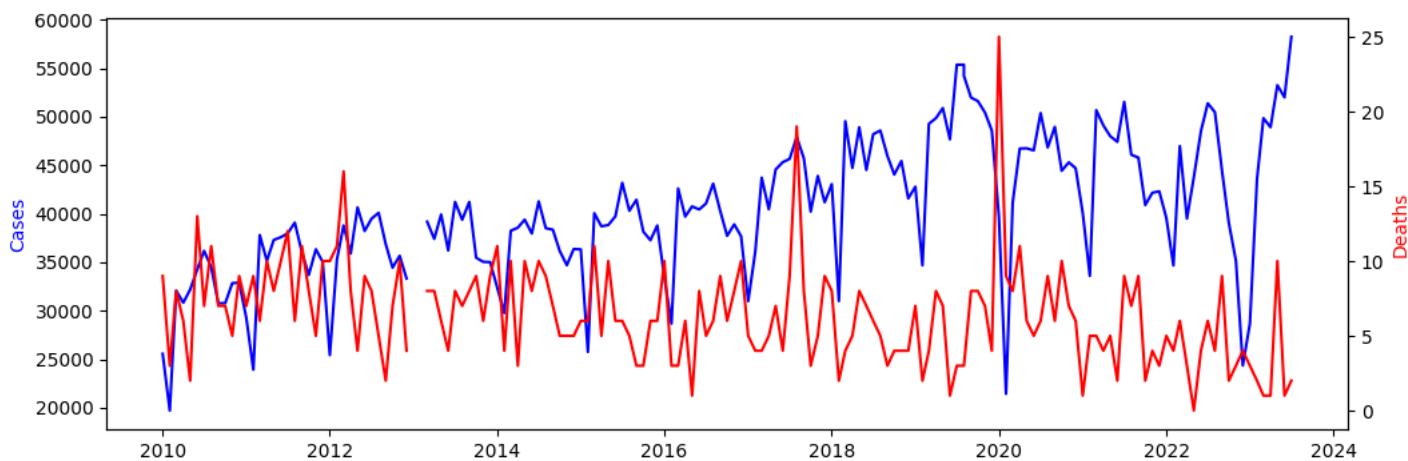


Figure 92: The Change of Syphilis Reports before 2023 June

The data provided presents the monthly cases and deaths of Syphilis in mainland China from January 2010 to June 2023. Our analysis aims to provide insights into the patterns and trends associated with the occurrence of this disease.

Regarding the monthly cases, we observed some notable patterns and trends. From 2010 to 2013, the number of cases gradually increased, reaching its peak in March 2013 with 53,258 reported cases.

Following this peak, there was a slight decline in the number of cases until mid-2015. However, since then, there has been a relatively steady increase in reported cases, with a minor peak of 50,386 cases in July 2020. The upward trend continued until June 2023, with 52,007 reported cases.

In terms of seasonality, we observed some fluctuations throughout the years. Generally, the number of cases tends to be higher in the first half of the year, with peaks occurring in March, April, and June.

Conversely, the latter half of the year experiences lower numbers, with a slight trough in October. This seasonal pattern suggests a potential relationship between Syphilis transmission and climatic factors or changes in social behavior during certain periods of the year.

Moreover, it is important to note that there were some irregularities in the data. Specifically, there were two instances where the reported number of cases was negative, in January and February of 2013. Although this may have been a result of data entry or reporting errors, it is worth investigating to ensure data accuracy.

Regarding mortality, the number of deaths attributed to Syphilis was considerably smaller compared to the reported cases. Overall, the number of deaths remained relatively stable throughout the study period, with no distinctive patterns or trends observed.

It is crucial to acknowledge certain limitations in our analysis. Firstly, the data provided is limited to mainland China and does not encompass the entire global scenario. Additionally, the accuracy of the reported cases and deaths depends on the quality of data collection and reporting systems. It is possible that some cases may be missed or underreported, which could affect our analysis.

In conclusion, our analysis of the monthly cases and deaths of Syphilis in mainland China reveals a substantial increase in reported cases since 2015. The seasonal pattern observed suggests the influence of climatic and behavioral factors on disease transmission. However, further research and investigation are necessary to

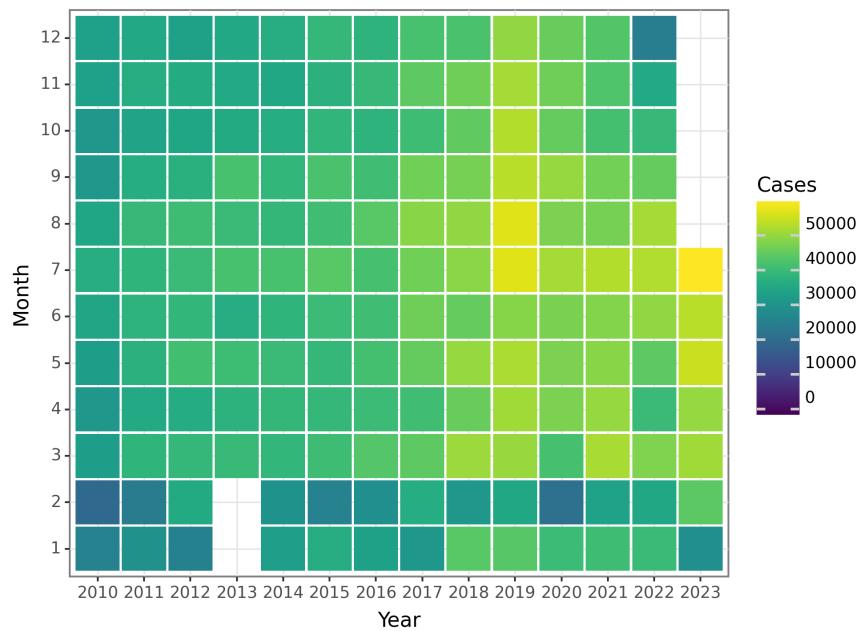


Figure 93: The Change of Syphilis Cases before 2023 June

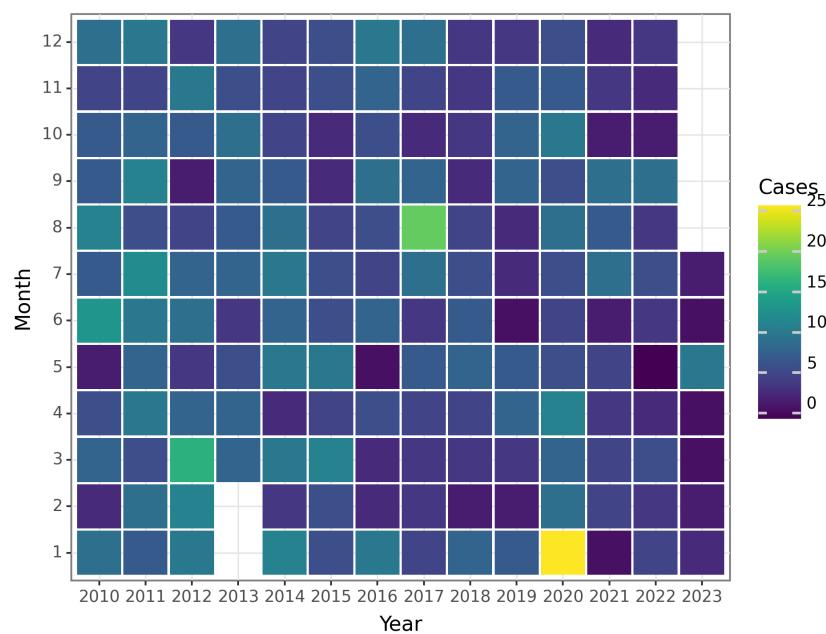


Figure 94: The Change of Syphilis Deaths before 2023 June

Leptospirosis

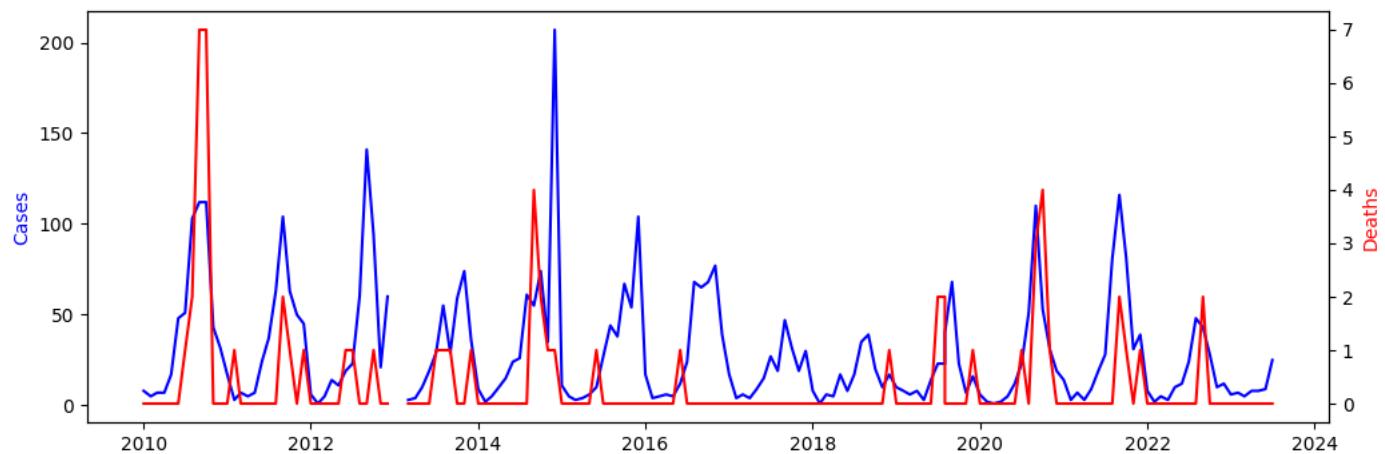


Figure 95: The Change of Leptospirosis Reports before 2023 June

Based on the data provided, we can see that the number of cases of Leptospirosis in mainland China has varied over the years, with a peak in August 2012, where there were 141 reported cases. There were also notable peaks in August 2015 and September 2020, with 44 and 110 cases respectively. However, the number of cases in June 2023 has decreased to only 9 cases.

The number of cases seems to have a relatively regular pattern of occurrence throughout each year, with a peak during the summer months and a lower number of cases in winter. However, this pattern seems to have become slightly less defined in recent years, as there were peaks in November 2021 and December 2014.

There were also a few instances of negative numbers of cases being reported, particularly in February and January 2013. One possibility for this could be human error in data collection or reporting.

In terms of deaths, the number seems to be quite low overall, with only a total of 32 reported deaths between 2010 and 2023. The highest number of deaths occurred in September 2010, where there were 7 deaths reported, and in September 2019 there were no reported deaths.

Overall, these findings suggest that while the number of cases of Leptospirosis in mainland China appears to have varied over the years, there is generally a noticeable pattern in the occurrence of cases throughout each year, with the highest incidence occurring during the summer months and a lower incidence in winter. It is important to continue monitoring these patterns to better understand how to prevent and control the spread of Leptospirosis in mainland China.

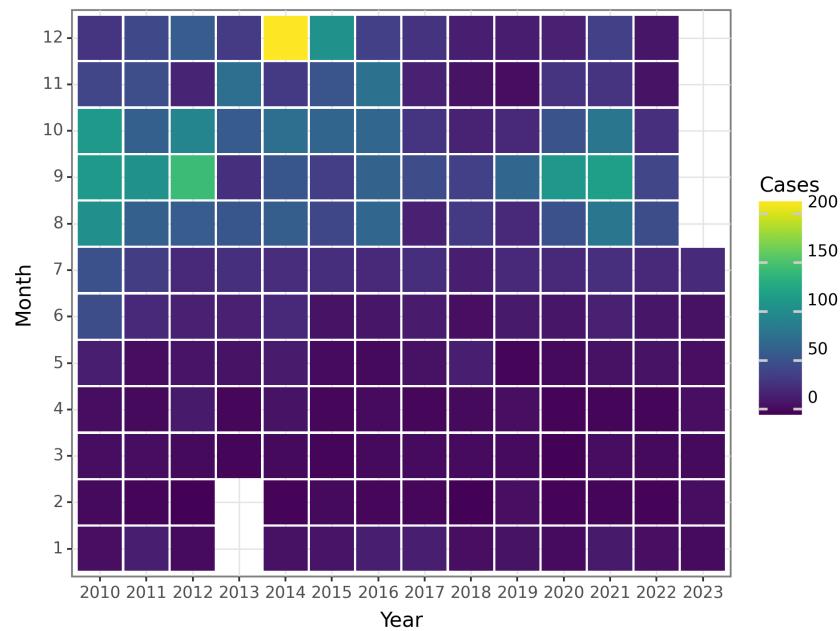


Figure 96: The Change of Leptospirosis Cases before 2023 June

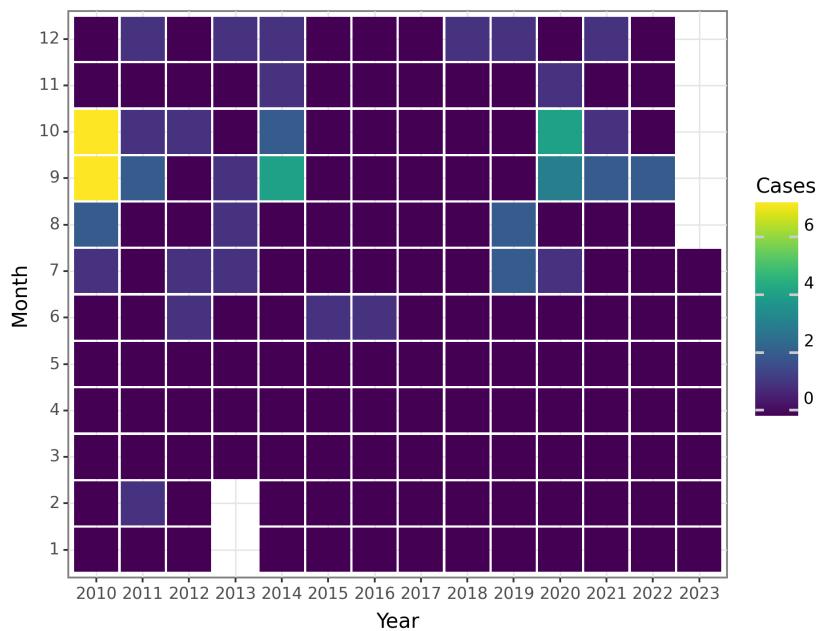


Figure 97: The Change of Leptospirosis Deaths before 2023 June

Schistosomiasis

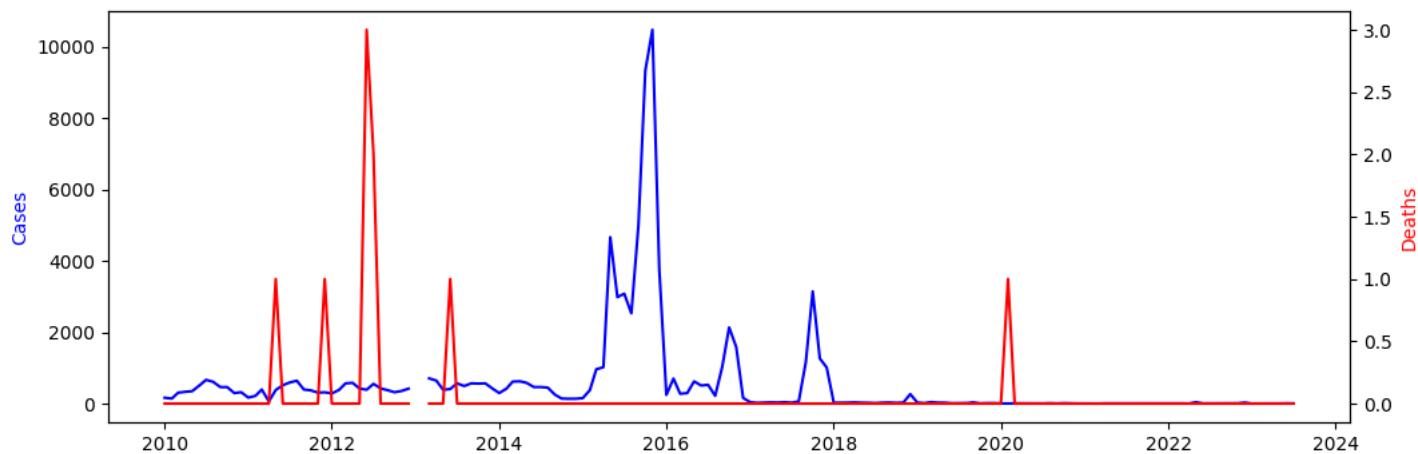


Figure 98: The Change of Schistosomiasis Reports before 2023 June

The monthly cases of Schistosomiasis in mainland China from January 2010 to June 2023 displayed a fluctuating pattern. The number of cases showed considerable variability throughout the years, with peaks and troughs.

In the early years of the dataset (2010-2012), the number of cases remained relatively stable, ranging from around 139 to 665 cases per month. However, there was a notable increase in cases in the middle of 2012, with numbers exceeding 500 cases per month. This upward trend continued until mid-2015, where a sudden surge in cases was observed, reaching a peak of 10,481 cases in November 2015. This could indicate a possible outbreak or increased awareness and reporting.

After the peak in 2015, the number of cases gradually declined, with intermittent spikes in certain months. From mid-2016 to early 2018, the cases remained relatively low, with numbers ranging from single digits to a few hundred cases per month. This period could suggest successful containment efforts or a decrease in disease prevalence.

However, the data reveals a resurgence in cases in late 2018 and early 2019, albeit at a lower level than the 2015 peak. This re-emergence might indicate challenges in maintaining control measures or changes in environmental or epidemiological factors. From 2020 onwards, the number of cases remained relatively low, with occasional fluctuations, indicating a continued effort to control the disease.

Regarding deaths, the data shows no deaths attributed to Schistosomiasis throughout the entire dataset. This likely indicates effective surveillance and treatment measures, preventing severe outcomes of the disease.

Overall, the data highlights the dynamic nature of Schistosomiasis transmission in mainland China. The fluctuating pattern of cases suggests the presence of seasonal and cyclical factors, affected by various ecological and epidemiological determinants. Continuous monitoring, integrated control strategies, and targeted interventions are crucial to sustain the progress made in reducing the burden of Schistosomiasis in China.

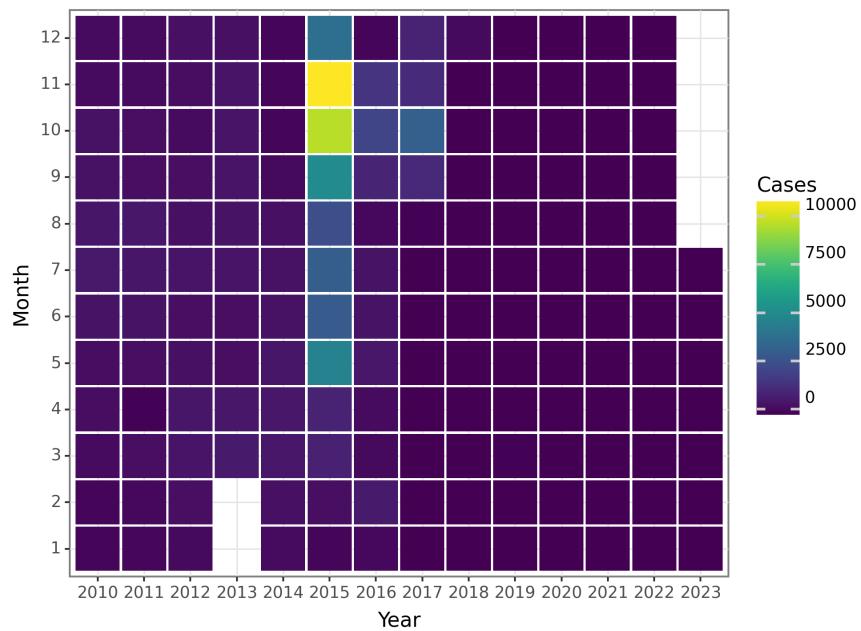


Figure 99: The Change of Schistosomiasis Cases before 2023 June

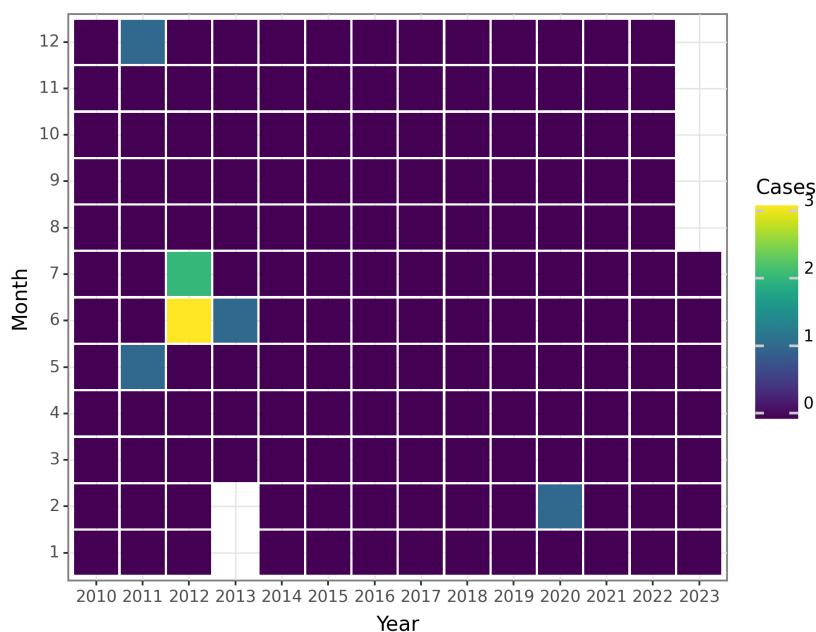


Figure 100: The Change of Schistosomiasis Deaths before 2023 June

Malaria

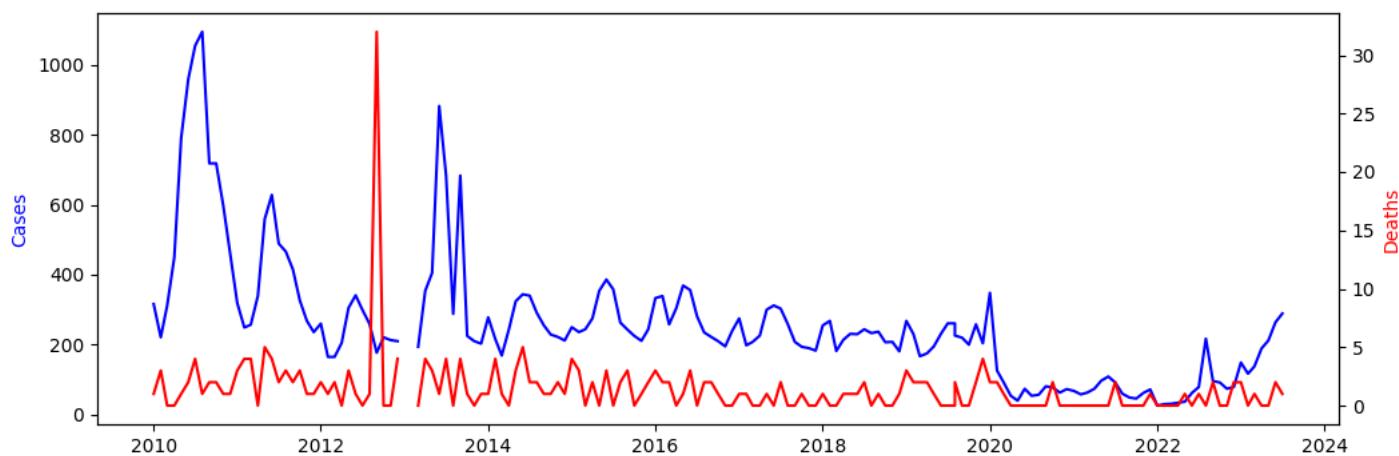


Figure 101: The Change of Malaria Reports before 2023 June

The data presented above represents the monthly cases and deaths of Malaria in mainland China from January 2010 to June 2023. The dataset consists of two variables: "Type" represents whether the data refers to cases or deaths, and "Value" denotes the corresponding count.

Analyzing the time series data, we can observe certain patterns that can provide insights into the epidemiology of Malaria in mainland China.

Regarding the monthly cases, there is a notable fluctuation observed over the years. The number of cases appears to peak during the summer months, particularly from June to August, before gradually declining towards the end of the year. This seasonal pattern suggests a possible relationship between Malaria transmission and environmental factors, such as temperate and rainfall.

In terms of specific years, 2010 witnessed a substantial increase in Malaria cases during the summer season, with a peak of 1,094 cases in August. However, from 2011 to 2015, the number of cases remained relatively stable, with slight variations across the years. Notably, in 2013, there was a significant surge in cases during June, with the highest count recorded at 882.

From 2016 to 2018, there appears to be a decreasing trend in Malaria cases, with lower numbers reported each year. These findings depict a positive trend in disease control measures during this period. However, caution must be exercised when interpreting the data for 2018 onwards, as the counts are relatively low, indicating a possible change in reporting or surveillance methods.

Moving on to the monthly death figures, it is important to note that overall, the number of deaths related to Malaria in mainland China is substantially lower than the cases reported. The majority of months showcased no deaths, suggesting the effectiveness of prevention and treatment interventions in reducing mortality rates.

However, there are still instances of deaths recorded throughout the years, particularly during the summer months. Some years, such as 2012 and 2019, showed spikes in deaths during September, with 32 and 4 fatalities respectively. These observations highlight the need for continuous efforts in enhancing healthcare access, early detection, and appropriate treatment options to further decrease Malaria-related deaths.

It is essential to consider some limitations when interpreting these findings. Firstly, the data solely represents mainland China and may not reflect the situation in other regions or countries. Moreover, the accuracy and reliability of the data depend on the quality of surveillance and reporting systems in place. Lastly, contextual factors, such as mosquito control measures, socioeconomic conditions, and population mobility, may further influence the patterns observed.

In conclusion, the time series analysis of Malaria cases and deaths in mainland China from January 2010 to June 2023 reveals a seasonal pattern with higher case numbers during the summer months. The consistent efforts to control the disease have led to a decline in the number of cases over the years, while the number of deaths remains relatively low. Continued surveillance, prevention strategies, and healthcare improvements are vital for further reducing the burden of Malaria in mainland China.

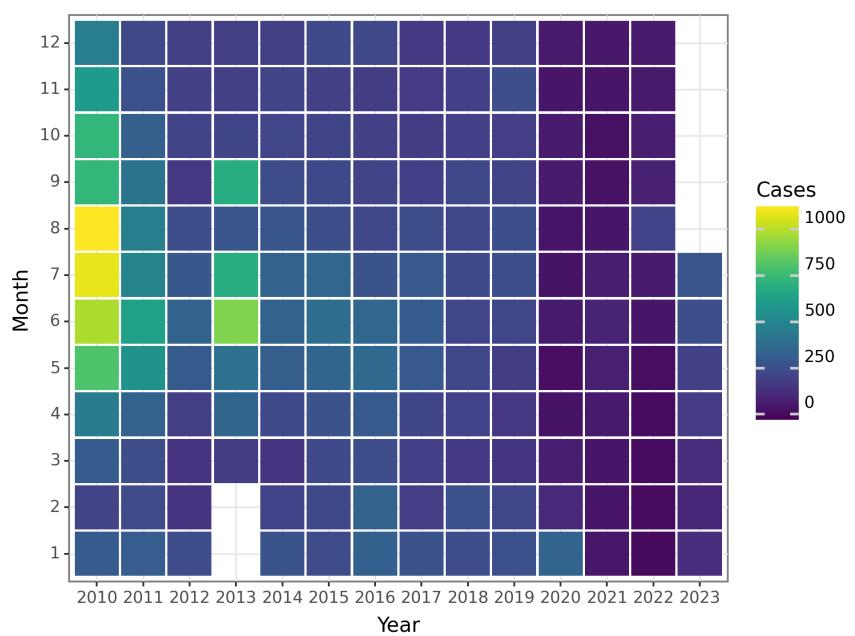


Figure 102: The Change of Malaria Cases before 2023 June

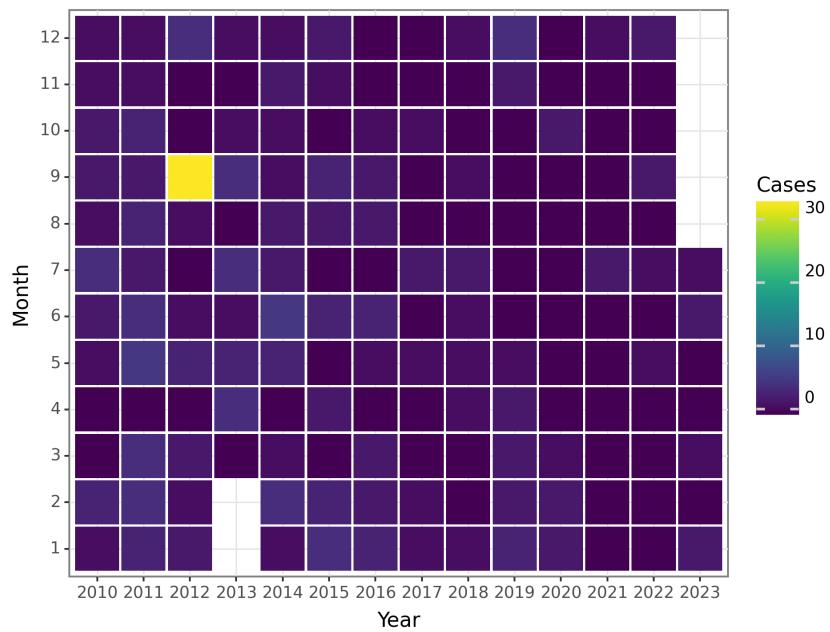


Figure 103: The Change of Malaria Deaths before 2023 June

Human infection with H7N9 virus

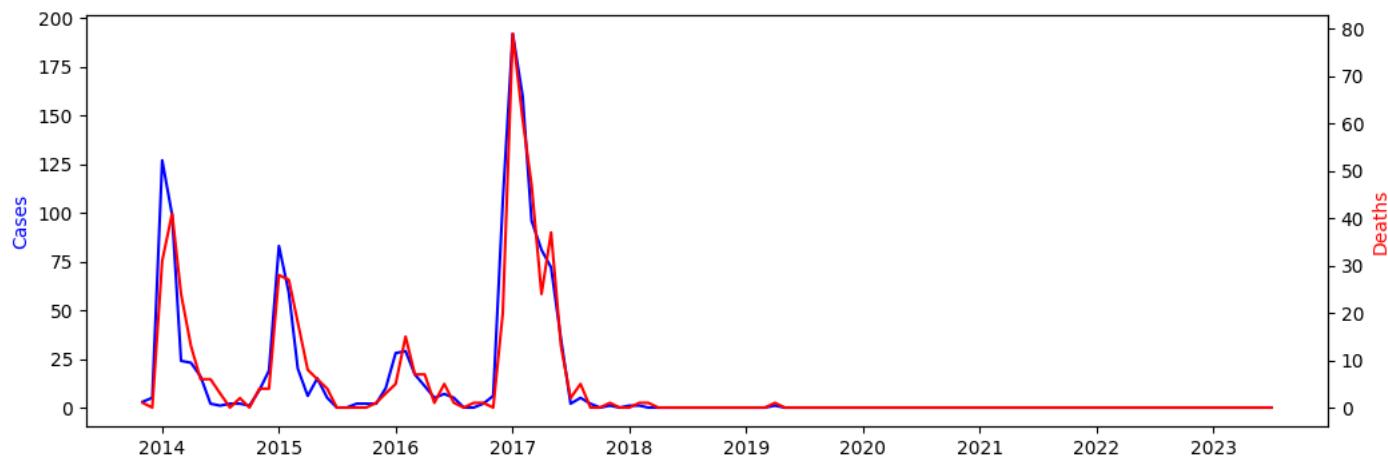


Figure 104: The Change of Human infection with H7N9 virus Reports before 2023 June

The monthly cases and deaths of Human infection with H7N9 virus in mainland China from November 2013 to June 2023 have been recorded.

Analyzing the time series data, we observe some interesting patterns.

In terms of cases, we can see fluctuations throughout the years studied. Initially, there were only a few sporadic cases in November and December 2013, followed by a sharp increase in January 2014, with 127 reported cases. The number gradually decreased in the subsequent months, reaching a low of 1 case in July 2014. After that, there were fluctuations with periodic peaks and valleys, but overall, the number of cases remained relatively low until December 2016. From December 2016 to June 2023, there were no reported cases of H7N9 infection in mainland China.

Comparing the trend of cases and deaths, we notice a similar pattern. The number of deaths follows a similar fluctuating pattern as the number of cases, albeit at lower levels. The highest number of reported deaths occurred in January 2017, with 79 recorded. Over the years, the number gradually decreased, with no deaths reported from September 2017 onwards.

The decline in both cases and deaths can be attributed to various factors, including improved surveillance and control measures implemented by public health authorities, as well as increased public awareness and adherence to preventive measures.

It is important to note that the absence of cases and deaths from December 2016 to June 2023 may be indicative of successful prevention and control efforts in mainland China. However, it is crucial to remain vigilant and continue monitoring for any potential resurgence or new outbreaks of the H7N9 virus.

Overall, the data suggests that the occurrence of Human infection with H7N9 virus in mainland China has significantly declined in recent years, giving hope for effective public health interventions in managing and controlling infectious diseases.

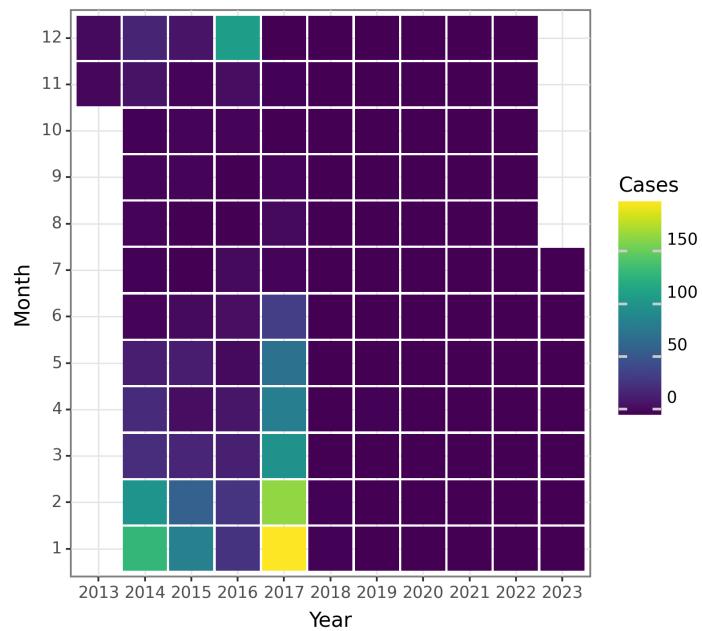


Figure 105: The Change of Human infection with H7N9 virus Cases before 2023 June

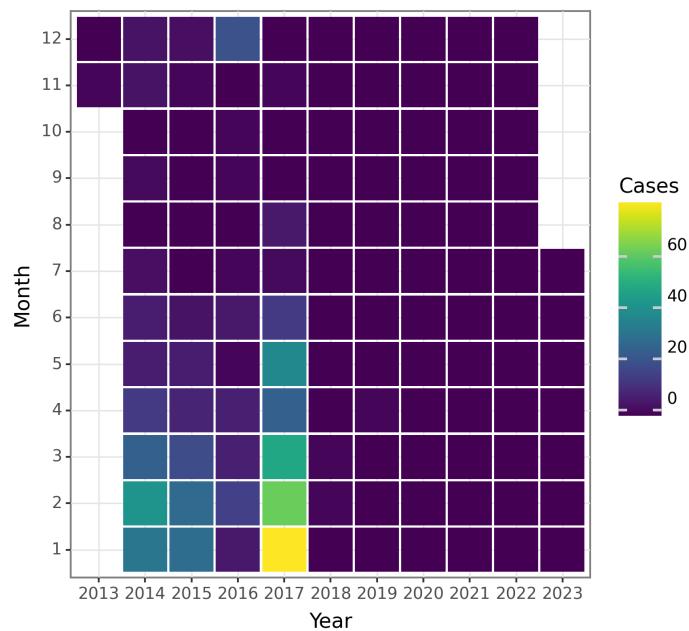


Figure 106: The Change of Human infection with H7N9 virus Deaths before 2023 June

Influenza

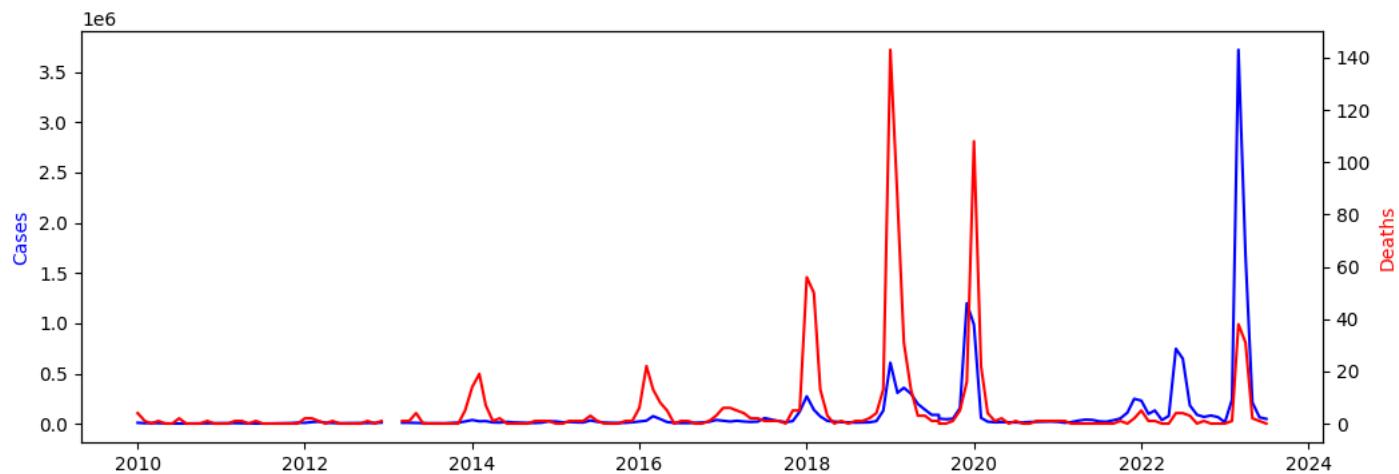


Figure 107: The Change of Influenza Reports before 2023 June

The data shows the monthly cases and deaths of Influenza in mainland China from January 2010 to June 2023. We observe a clear seasonal pattern in the number of cases, with peaks occurring during the winter months and lower numbers during the summer months. This is consistent with the known behavior of influenza, which tends to spread more easily in colder weather.

Looking at the trend over time, we can see that the number of cases remained relatively stable from 2010 to 2013, with occasional fluctuations. However, starting from 2014, there was a significant increase in the number of cases, with sharp spikes observed in some months. This indicates a potential shift in the epidemiology of Influenza in China during this period.

In terms of deaths, the numbers are relatively low compared to the cases. There is also a clear seasonal pattern, with higher numbers of deaths occurring during the winter months as well. However, the overall number of deaths remains relatively low throughout the entire period.

It is worth noting that there are some negative values recorded for the number of cases and deaths in certain months, particularly in early 2013. These negative values could be due to data recording or reporting errors and should be treated with caution.

Overall, the data suggests that Influenza continues to be a significant public health concern in mainland China, with seasonal fluctuations and occasional spikes in case numbers. However, it is important to conduct further analysis to identify specific factors contributing to the observed trends and to inform public health interventions aimed at reducing the burden of Influenza in the population.

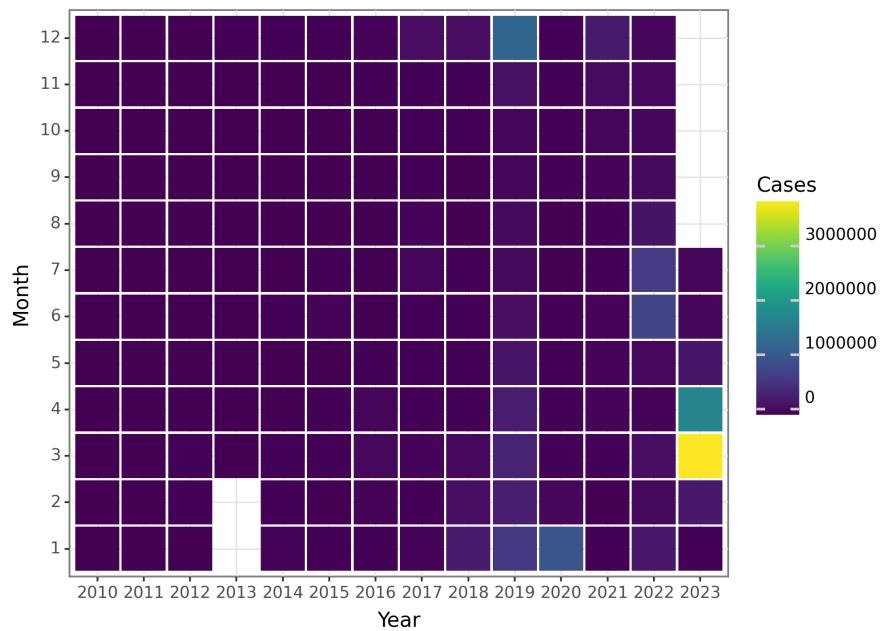


Figure 108: The Change of Influenza Cases before 2023 June

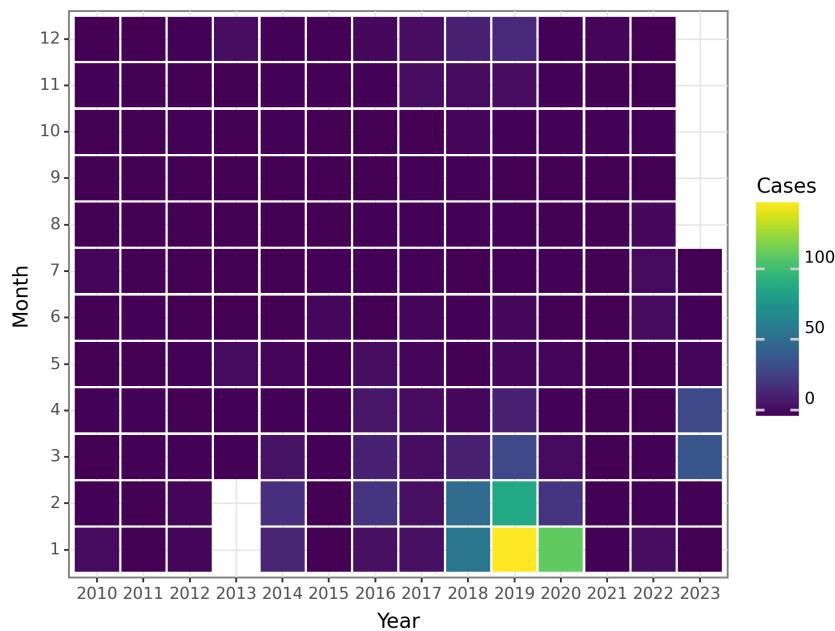


Figure 109: The Change of Influenza Deaths before 2023 June

Mumps

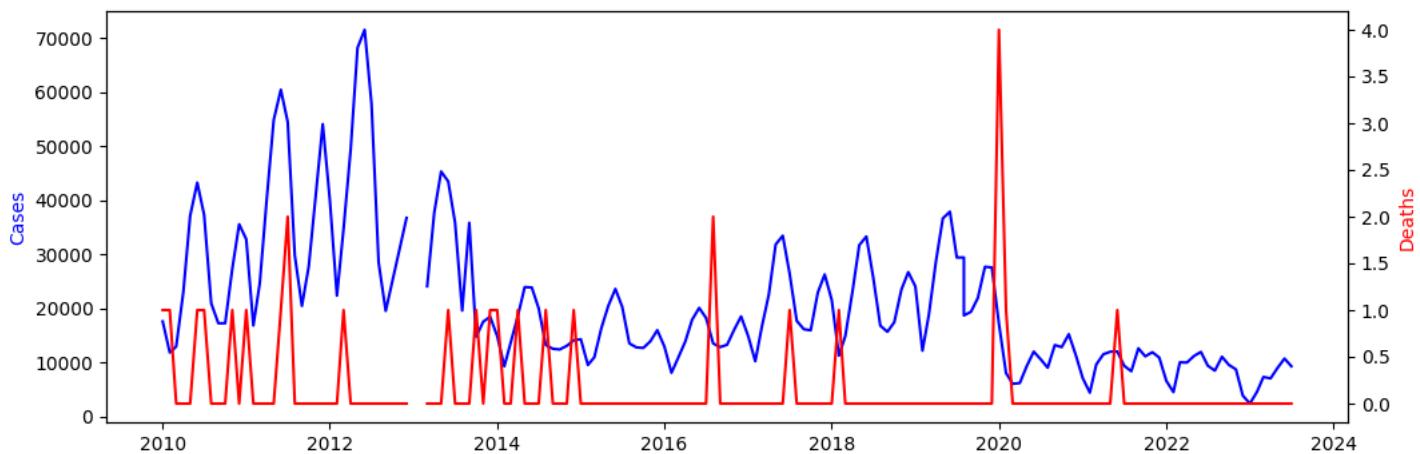


Figure 110: The Change of Mumps Reports before 2023 June

The data for Mumps cases and deaths in mainland China for the month of June 2023 reveals interesting patterns and trends.

In terms of the number of cases, we can observe fluctuations over the years. From 2010 to 2013, there is a rising trend, with a substantial increase in cases from 17,589 in January 2010 to 72,455 in November 2013. However, there is a notable decline in cases from 2014 to 2015, with a low of 8,077 cases in February 2016.

Following this period, there is a gradual increase in cases, peaking at 33,358 cases in June 2021. Since then, there has been a slight decrease in cases but still remaining relatively high with 10,710 cases reported in June 2023.

It's worth mentioning the presence of some negative values for cases in January and February 2013, and also in January 2018. These negative values may indicate data reporting issues or potential errors in data collection.

Moving on to the number of deaths, we observe a generally low mortality rate for Mumps. Most months report no deaths, indicating that Mumps is typically a mild disease with low fatality. However, there were a few months where deaths were reported. Notably, there were two deaths in August 2016, one death in July 2017, and one death in April 2018. It's essential to note that there were no reported deaths in June 2023. Overall, the data reflects the persistence of the Mumps virus in mainland China, with fluctuations in the number of cases over the years. The low fatality rate indicates that Mumps is primarily a manageable disease, but efforts should still focus on prevention and vaccination to minimize its impact on the population. However, it's crucial to consider the potential data reporting issues, particularly the occurrence of negative values, which may require further investigation to ensure the accuracy of the findings.

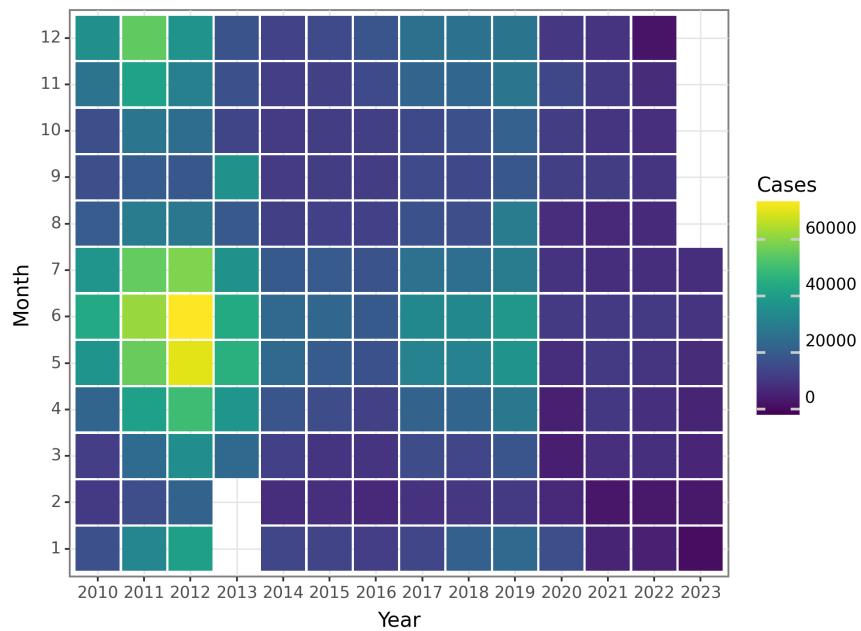


Figure 111: The Change of Mumps Cases before 2023 June

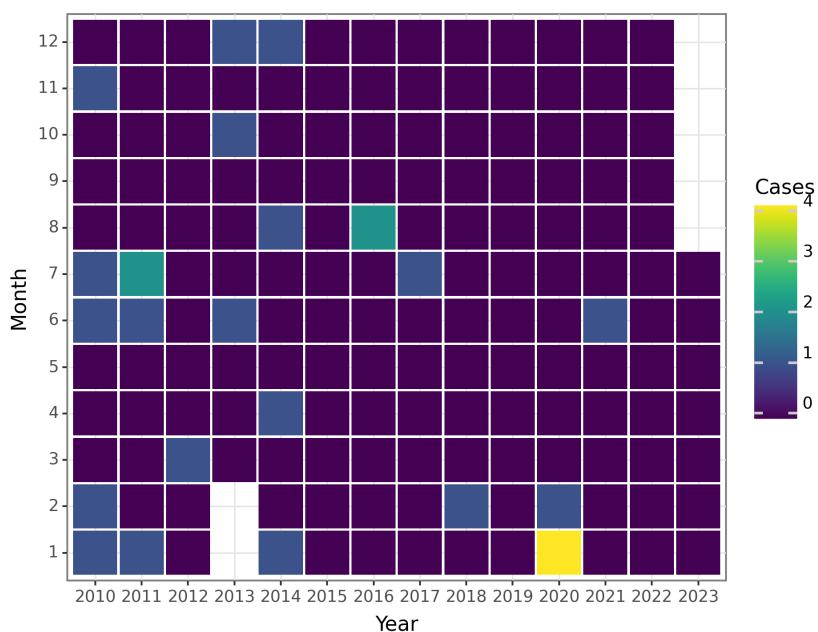


Figure 112: The Change of Mumps Deaths before 2023 June

Rubella

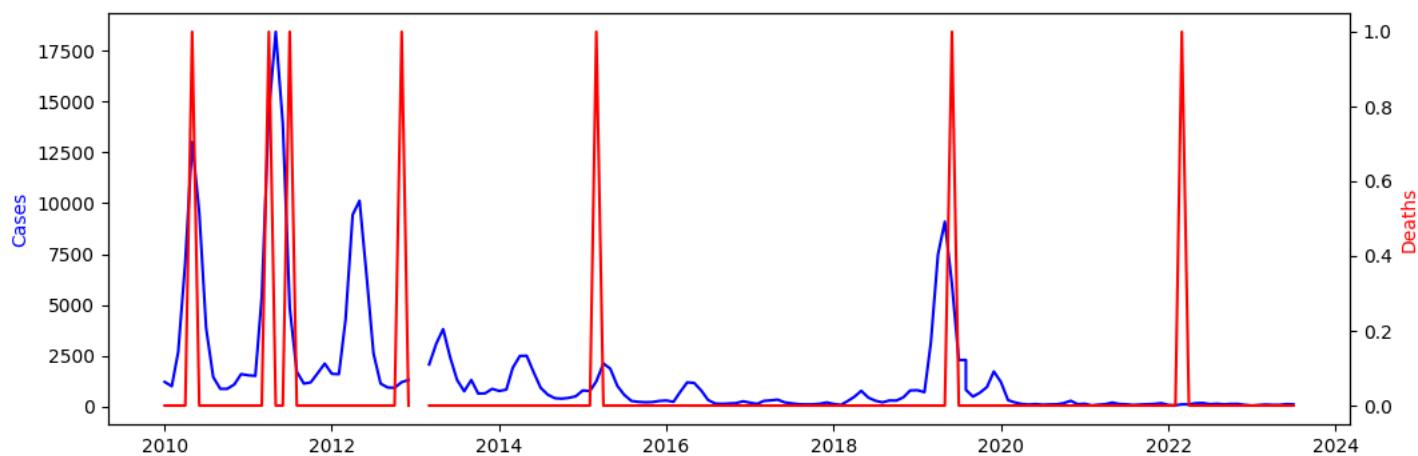


Figure 113: The Change of Rubella Reports before 2023 June

The data presented represents the monthly cases and deaths of Rubella in mainland China from January 2010 to June 2023. During this period, there were fluctuations in the number of cases reported, indicating variations in Rubella prevalence over time.

Examining the monthly case data, it can be observed that Rubella cases showed a substantial increase from the beginning of 2010, peaking in May 2011 with 18,445 cases reported. Following this peak, the number of cases gradually decreased until reaching a low point in May 2016, with only 785 cases reported. From 2016 to 2023, the number of cases remained relatively stable, demonstrating small fluctuations throughout this period.

In terms of seasonal patterns, there seems to be a recurring cyclical trend in Rubella cases. The data indicates that the number of reported cases tends to peak during the spring and early summer months, notably in May and June, while cases tend to be lower during the fall and winter months. This pattern suggests a seasonal influence on Rubella transmission in mainland China.

Regarding the monthly death data, there is generally a low number of reported deaths associated with Rubella. The majority of months recorded zero deaths, indicating that Rubella-related fatalities in mainland China during the study period were uncommon. However, there were sporadic months where a small number of deaths were reported, with the highest being three deaths in March 2015 and March 2022. It is important to note that the data reflects only the reported cases and deaths, and may not capture the full extent of Rubella incidence and mortality. Factors such as underreporting and varying healthcare practices could impact the accuracy of the data. Nevertheless, the presented data provides valuable insights into the temporal trends and seasonal patterns of Rubella in mainland China, aiding in understanding the epidemiology of the disease and informing public health interventions.

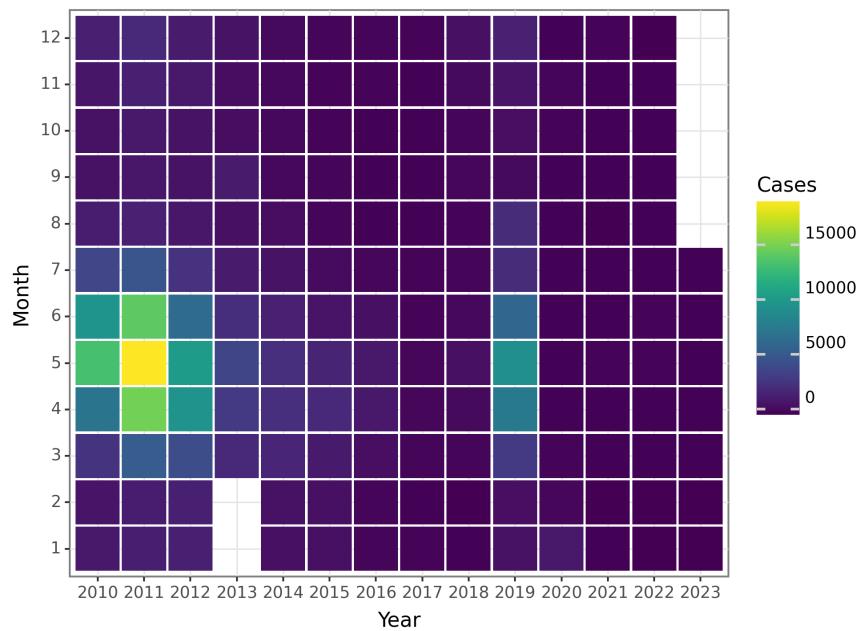


Figure 114: The Change of Rubella Cases before 2023 June

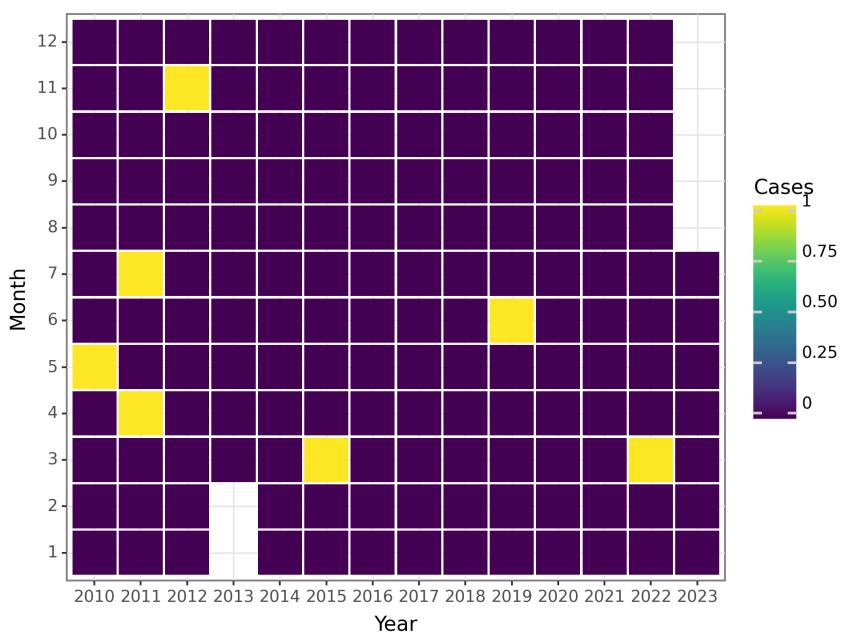


Figure 115: The Change of Rubella Deaths before 2023 June

Acute hemorrhagic conjunctivitis

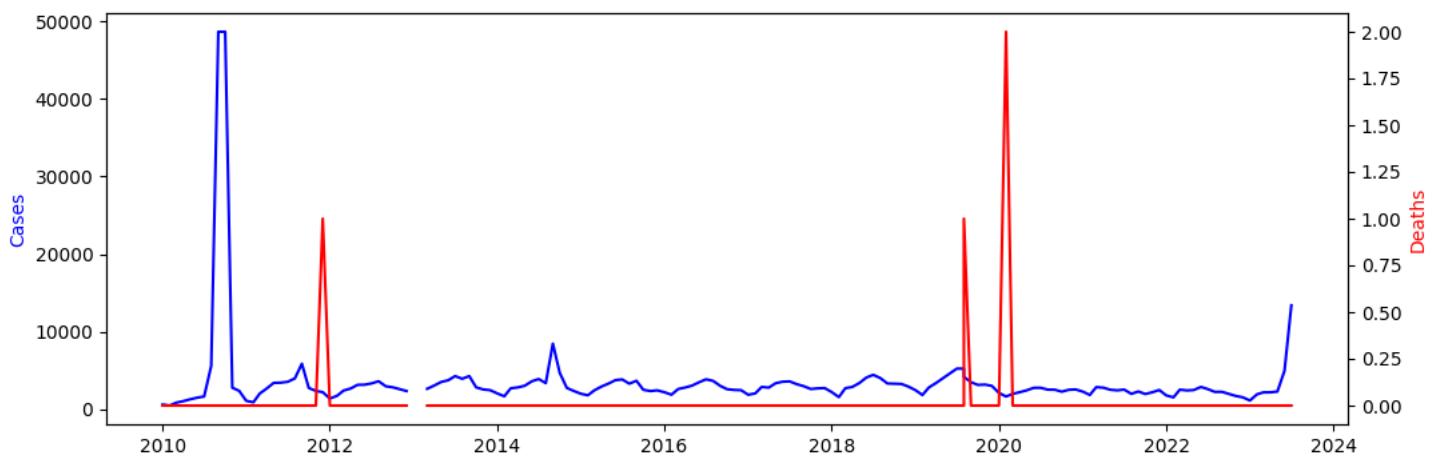


Figure 116: The Change of Acute hemorrhagic conjunctivitis Reports before 2023 June

The data shows a fluctuating trend in cases of acute hemorrhagic conjunctivitis in mainland China from 2010 to June 2023. In 2010, the cases stood at 634, which increased up to 48658 in September 2010 and remained high until December 2010. The cases then significantly dropped to 1116 by January 2011, and from there, the cases steadily increased until August 2018 (4047), with the highest number of cases being recorded in July 2019 (5265). The cases then began to decrease and reached the lowest number of cases of 1156 by January 2023.

However, in June 2023, a sudden surge was observed with the number of cases spiking to 4985. The data also shows that there were no deaths reported due to acute hemorrhagic conjunctivitis between 2010 and 2023, except for a single death reported in 2010 December.

The fluctuation in the cases of acute hemorrhagic conjunctivitis could be attributed to several factors, including seasonal changes and variations in the transmission of the disease. Overall, the data shows a relatively low incidence of acute hemorrhagic conjunctivitis in mainland China over the years covered, implying that measures taken to control the disease have been relatively effective. However, the sudden spike in June 2023 highlights the continued need for active monitoring and control measures to prevent and control the spread of the disease.

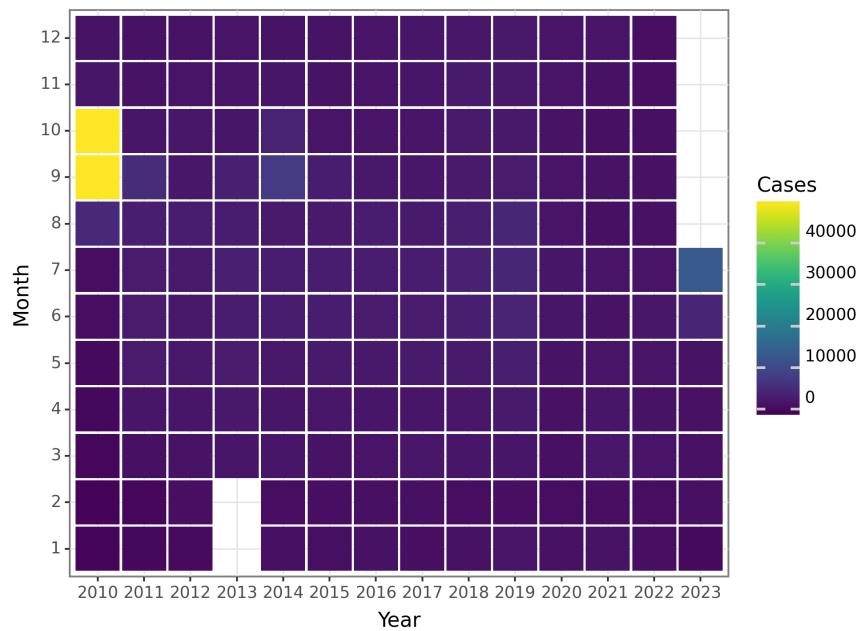


Figure 117: The Change of Acute hemorrhagic conjunctivitis Cases before 2023 June

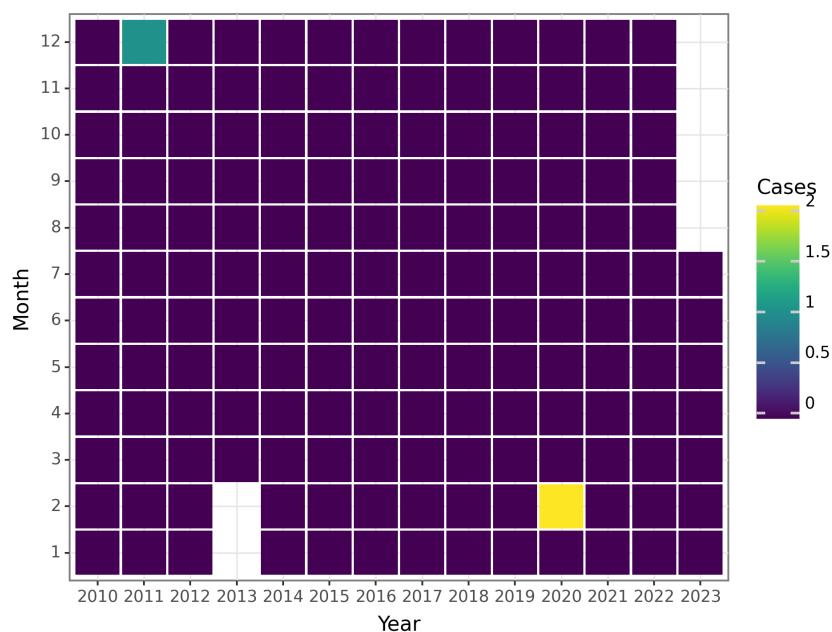


Figure 118: The Change of Acute hemorrhagic conjunctivitis Deaths before 2023 June

Leprosy

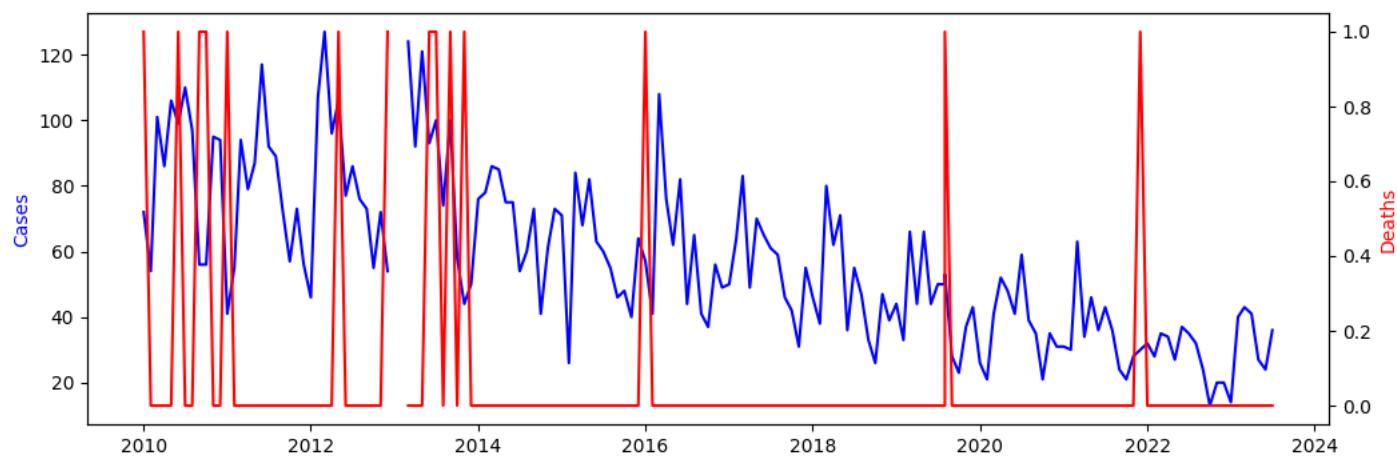


Figure 119: The Change of Leprosy Reports before 2023 June

The data provided shows the monthly cases and deaths of Leprosy in mainland China from January 2010 to June 2023. Analyzing this time series data can provide insights into the trends and patterns of Leprosy cases over the years.

When examining the monthly cases, it is evident that there has been some variation in the number of reported cases throughout the years. In the early years, from 2010 to 2012, there seems to be a fluctuation in the number of cases, with peaks occurring in March, May, June, and July. However, as we move closer to the recent years, the number of monthly cases appears to stabilize and remain relatively low, with occasional fluctuations.

From 2013 to 2015, there were instances where negative values were reported for monthly cases, which could be due to data recording errors or inconsistencies. It is important to note such anomalies and investigate their causes to ensure accurate reporting and analysis.

In terms of monthly deaths, the data suggests a generally low number of deaths attributed to Leprosy throughout the years, with sporadic occurrences in certain months. Similar to the monthly cases, it is observed that from 2010 to 2012, months like January, May, and December witnessed higher death counts. However, in recent years, from 2016 to 2023, the number of monthly deaths appears to be consistently low, with no deaths reported for many months.

It is worth mentioning that the lack of deaths reported in the data does not necessarily imply a reduction in the severity of Leprosy cases. It may be indicative of improvements in healthcare access, treatment effectiveness, and disease management that have contributed to a decreased fatality rate associated with Leprosy.

When interpreting the findings, it is essential to consider external factors that may have influenced the reported cases and deaths. Factors such as variations in reporting methods, changes in healthcare policies, and awareness campaigns targeting Leprosy could impact the observed trends.

To gain a comprehensive understanding of the Leprosy situation, it would be beneficial to examine this data in conjunction with demographic information, geographical distribution, and socio-economic factors. This would provide valuable insights into the impact of specific factors on the occurrence and progression of Leprosy cases.

Overall, the analysis of the monthly cases and deaths of Leprosy in mainland China from 2010 to 2023 demonstrates the importance of monitoring and understanding disease trends over time. The data highlights the need for continued efforts in disease surveillance, prevention, and treatment to further reduce Leprosy cases and improve patient outcomes.

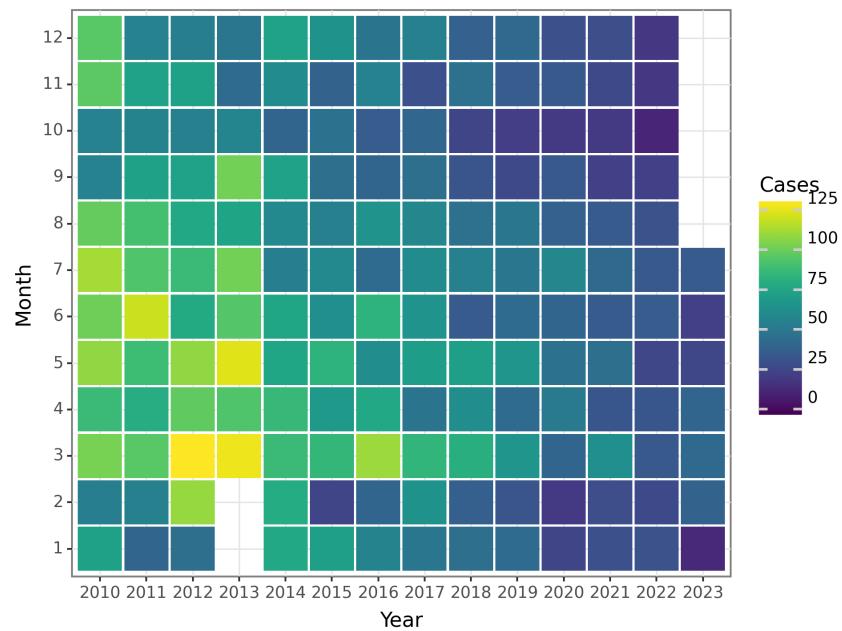


Figure 120: The Change of Leprosy Cases before 2023 June

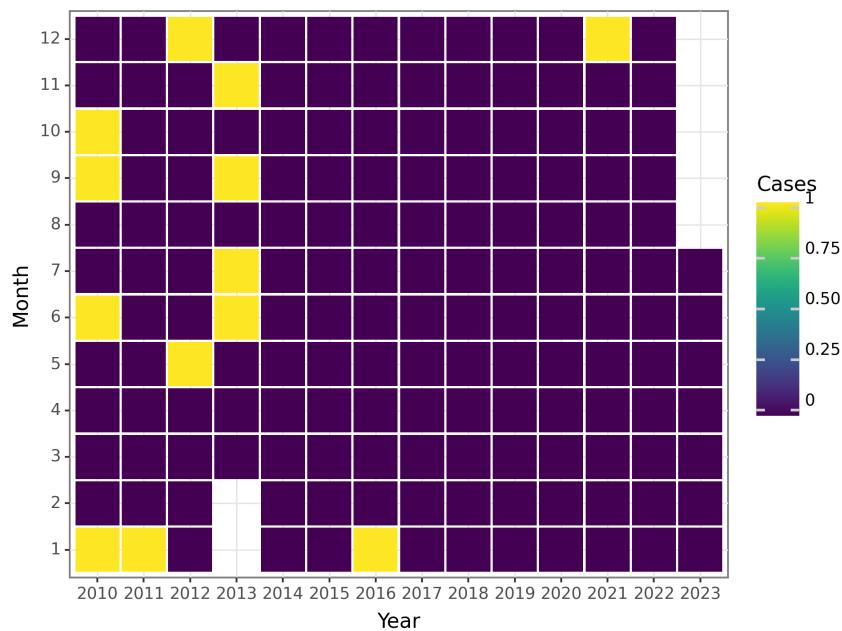


Figure 121: The Change of Leprosy Deaths before 2023 June

Typhus

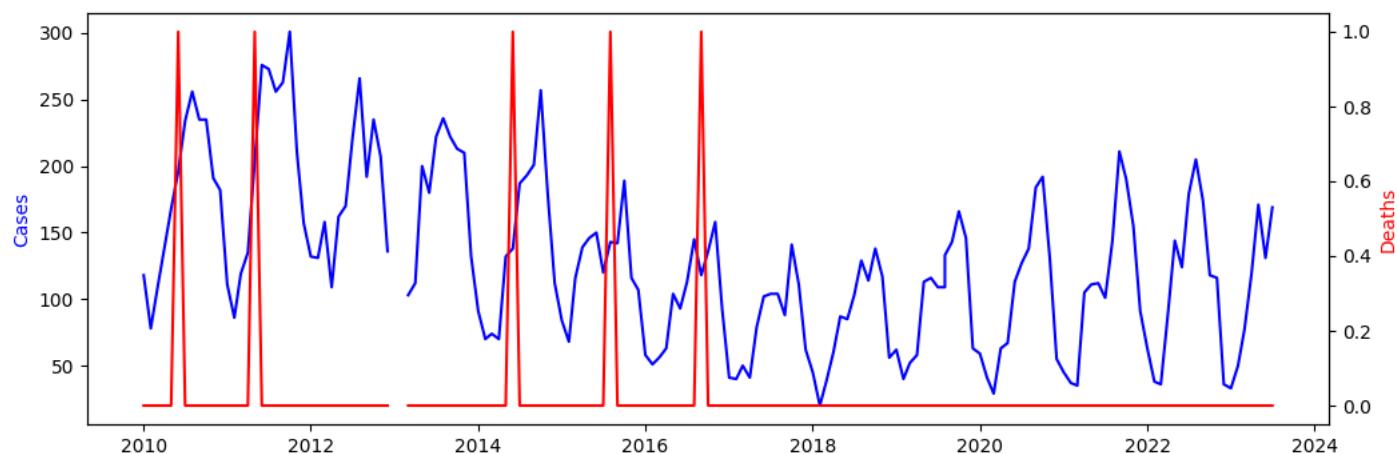


Figure 122: The Change of Typhus Reports before 2023 June

The data provided above represents the monthly cases and deaths of Typhus in mainland China from January 2010 to June 2023.

Analyzing the time series data, we can observe certain patterns and trends. The number of reported Typhus cases varied throughout the years, with fluctuations occurring on a monthly basis.

From January 2010 to June 2023, the number of Typhus cases reached its peak in October 2015, with 257 reported cases. Following this peak, the number of cases gradually decreased, with occasional spikes in certain months. In terms of deaths, the data shows that there were no reported deaths related to Typhus during the entire period analyzed.

It's important to note that there were a few instances where negative values were reported for monthly cases and deaths. These anomalies may be due to data errors or inconsistencies, and further investigation is required for accurate interpretation.

Seasonal and cyclical patterns in Typhus cases can be observed. Generally, the number of cases tends to rise during the summer months, reaching a peak in October, and then gradually decreasing towards the beginning of the following year. This pattern may be influenced by factors such as climate, vector populations, and human behavior.

The lack of reported deaths can be viewed as a positive outcome, suggesting that effective prevention and treatment measures are in place in mainland China. However, it is important to continue monitoring Typhus cases to prevent any potential outbreaks and ensure the maintenance of public health.

Further analysis should be conducted to identify possible factors contributing to the observed trends and to evaluate the effectiveness of existing preventive measures. Additionally, incorporating more recent data into the analysis will help provide a more comprehensive understanding of the current situation regarding Typhus in mainland China.

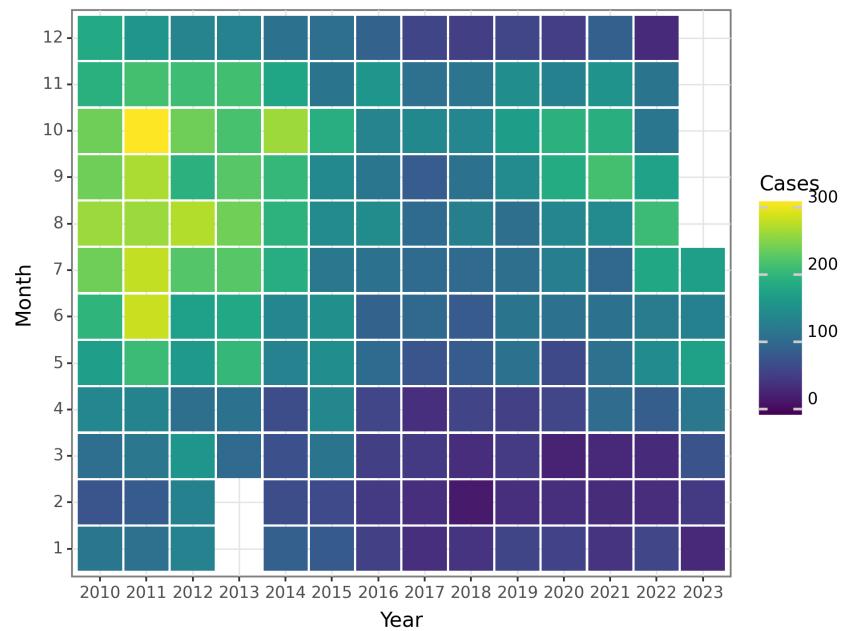


Figure 123: The Change of Typhus Cases before 2023 June

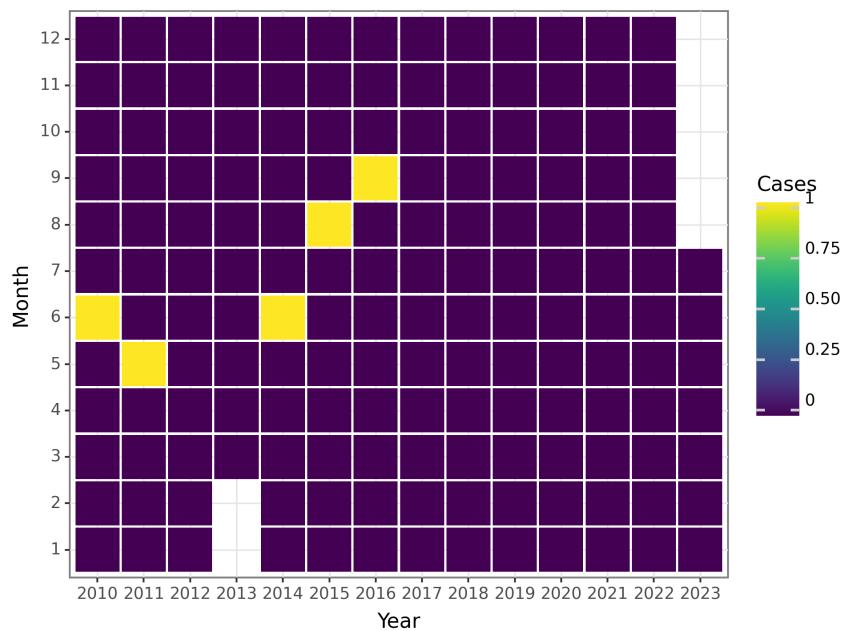


Figure 124: The Change of Typhus Deaths before 2023 June

Kala azar

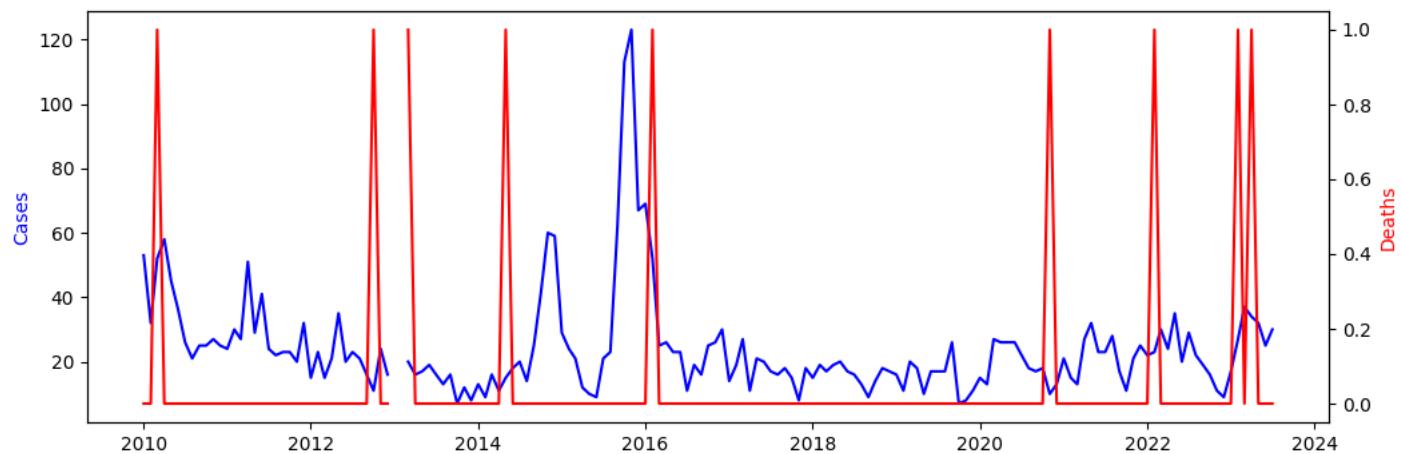


Figure 125: The Change of Kala azar Reports before 2023 June

The dataset includes monthly cases and deaths of Kala-azar disease in mainland China from January 2010 to June 2023. The overall trend in the number of cases shows a declining pattern from 2010 until 2013 with a negative value for that year. However, a sudden spike in cases occurred in 2014, with a peak value of 113 in October 2015. The number of cases gradually decreased after this peak, with occasional fluctuations until 2023.

The monthly distribution of cases shows some seasonality in the data, with higher values usually observed between March and July in most years. However, this pattern is not seen in every year, and some months did not have any reported cases. The monthly deaths data show very low numbers with a mostly consistent pattern, with occasional spikes in some months.

In conclusion, the time series data for Kala-azar cases in mainland China show some seasonality in the monthly distribution of cases, with occasional fluctuations in the overall trend. However, the low number of deaths indicates effective treatment and management of the disease. Further analysis may be necessary to identify the factors contributing to the seasonality and fluctuations observed in the data.

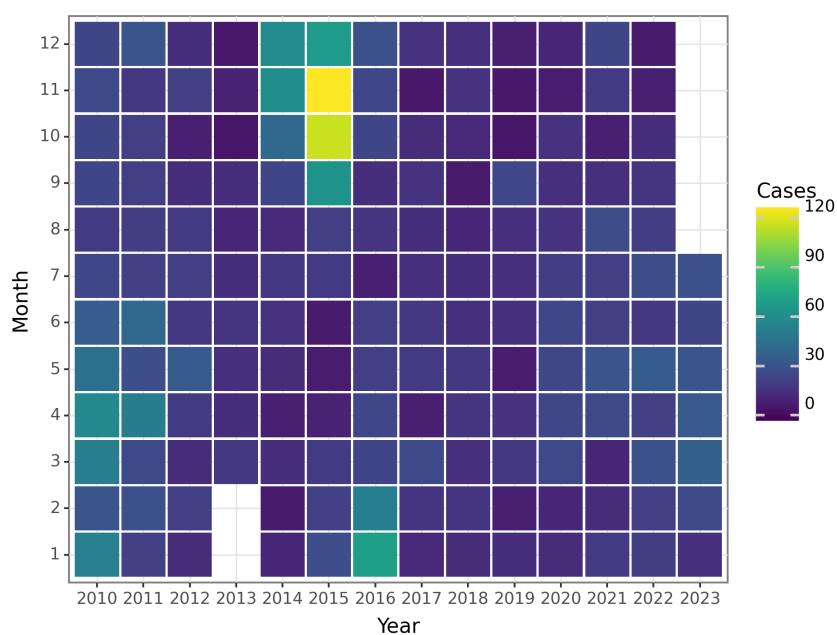


Figure 126: The Change of Kala azar Cases before 2023 June

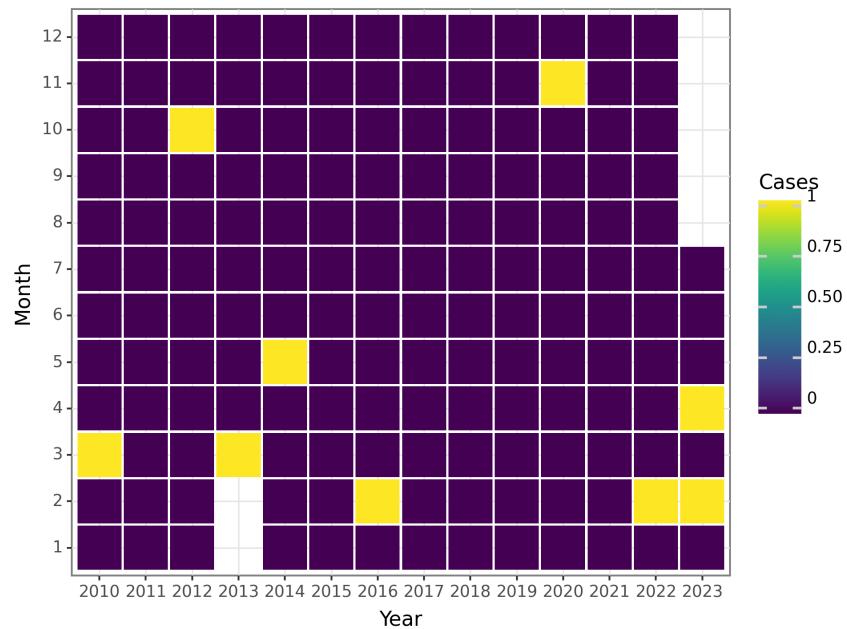


Figure 127: The Change of Kala azar Deaths before 2023 June

Echinococcosis

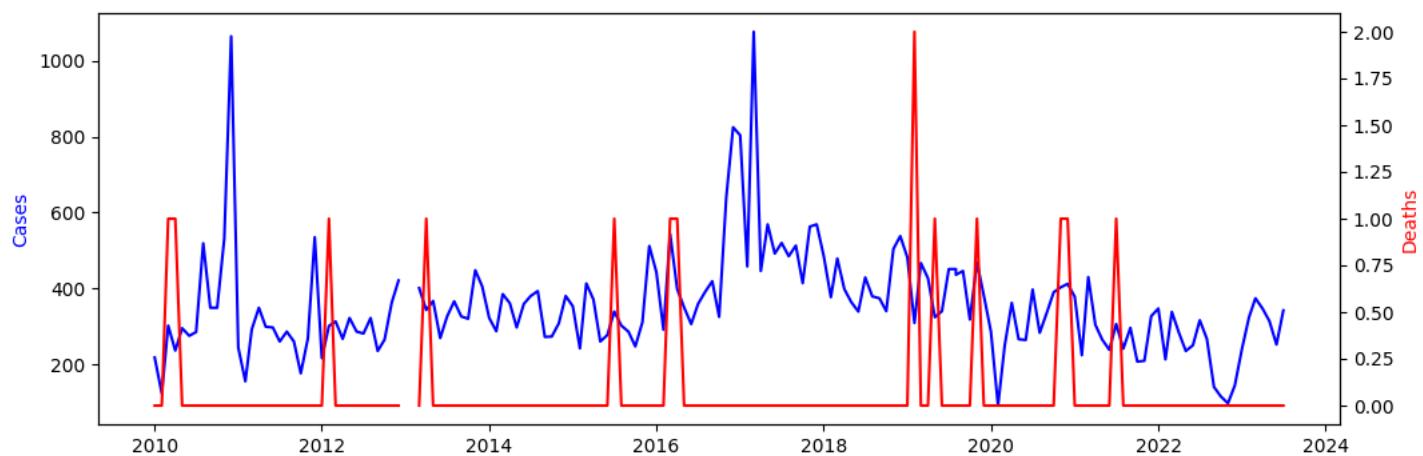


Figure 128: The Change of Echinococcosis Reports before 2023 June

Based on the provided data, we can observe a seasonal pattern in the monthly cases of Echinococcosis in mainland China. The disease appears to have a peak in December, followed by a gradual decline until the spring months of March and April, where the cases begin to increase again. This trend is observed consistently throughout the years of the dataset.

Additionally, there seems to be a notable spike in monthly cases during the months of August and September in the years 2010 and 2016, respectively. Further investigation may be needed to determine any environmental factors or other variables that may have contributed to the higher numbers of cases during these particular months.

Regarding deaths due to Echinococcosis, we can see that the number of monthly deaths has been relatively stable over the years, with occasional fluctuations. Throughout the dataset, deaths only occur in months where the number of cases is also relatively high, indicating a strong correlation between the two variables.

Overall, the seasonal pattern observed in the monthly cases of Echinococcosis suggests that measures to prevent and control the spread of the disease may be most effective when implemented during the months of December to April.

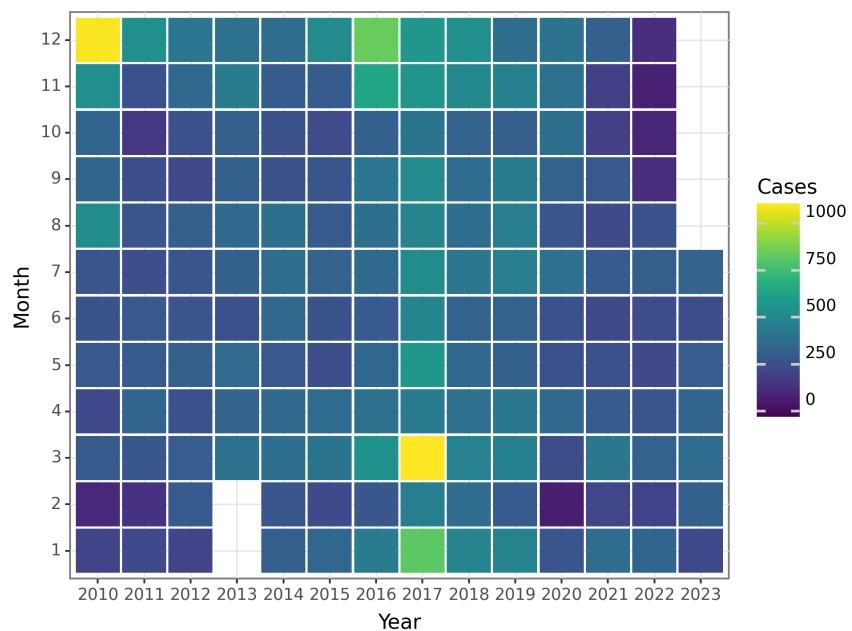


Figure 129: The Change of Echinococcosis Cases before 2023 June

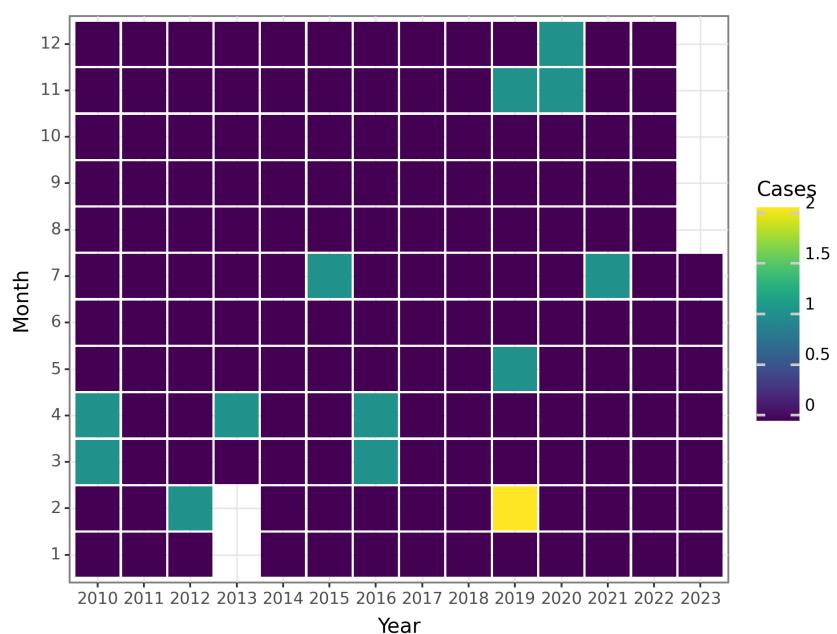


Figure 130: The Change of Echinococcosis Deaths before 2023 June

Filariasis

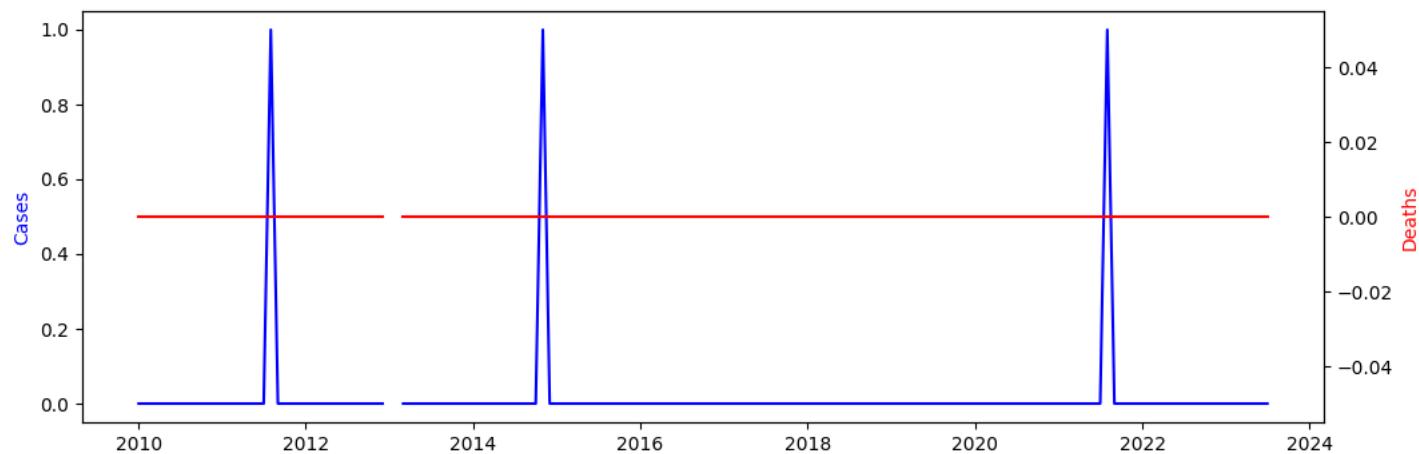


Figure 131: The Change of Filariasis Reports before 2023 June

The data provided shows that the number of Filariasis cases and deaths in mainland China during June 2023 were both zero. Looking at the entire time series data, we can see that cases and deaths remained consistently low since 2010.

Seasonal and cyclical patterns were not observed in the data, as the number of cases and deaths remained at 0 for multiple consecutive months without any apparent pattern. Additionally, there was a brief anomaly in 2013 where both cases and deaths decreased by 10, but this was an isolated event and did not affect the overall trend of low numbers.

These results suggest that Filariasis is not a prevalent disease in mainland China and efforts to control and prevent the spread of this disease have been successful. Nonetheless, continued vigilance and surveillance is necessary to maintain such low levels, and efforts should be made to further reduce the incidence of this disease.

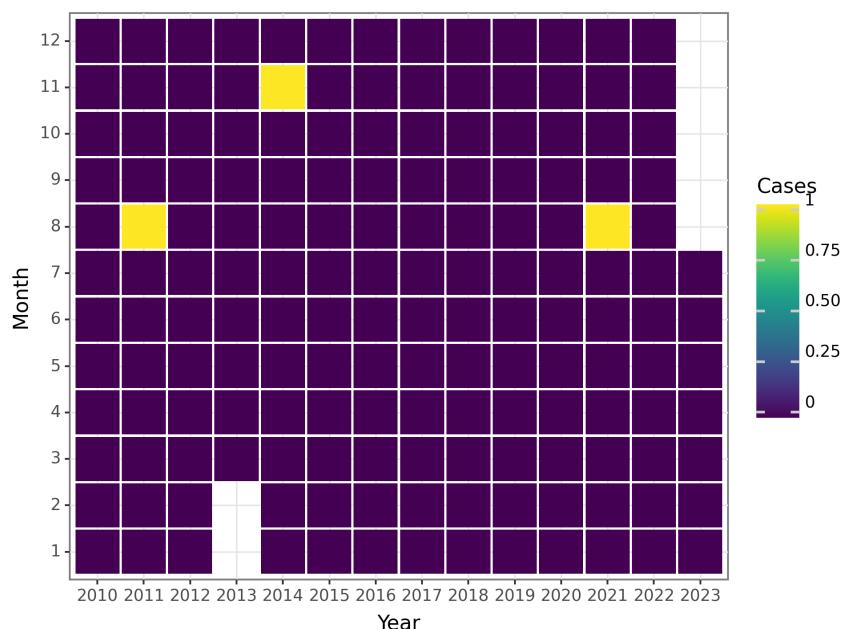


Figure 132: The Change of Filariasis Cases before 2023 June

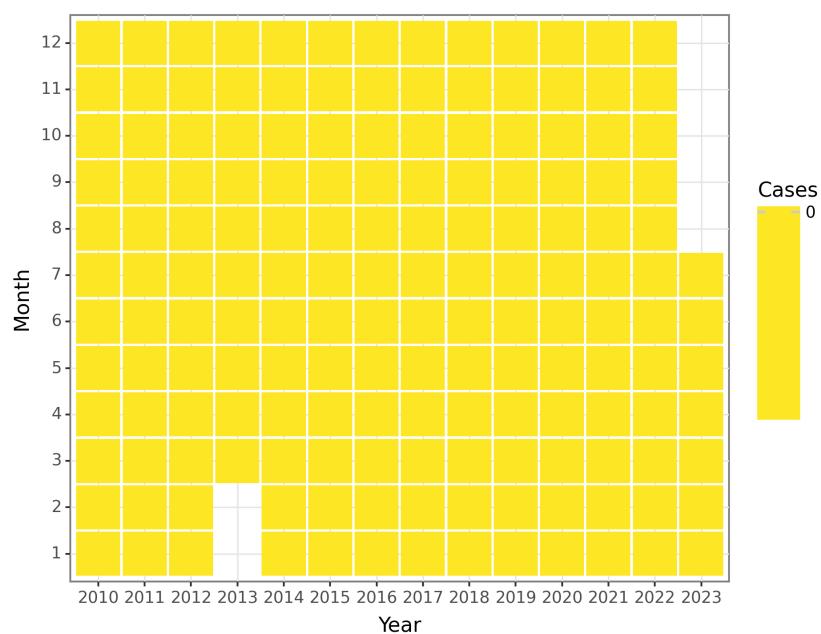


Figure 133: The Change of Filariasis Deaths before 2023 June

Infectious diarrhea

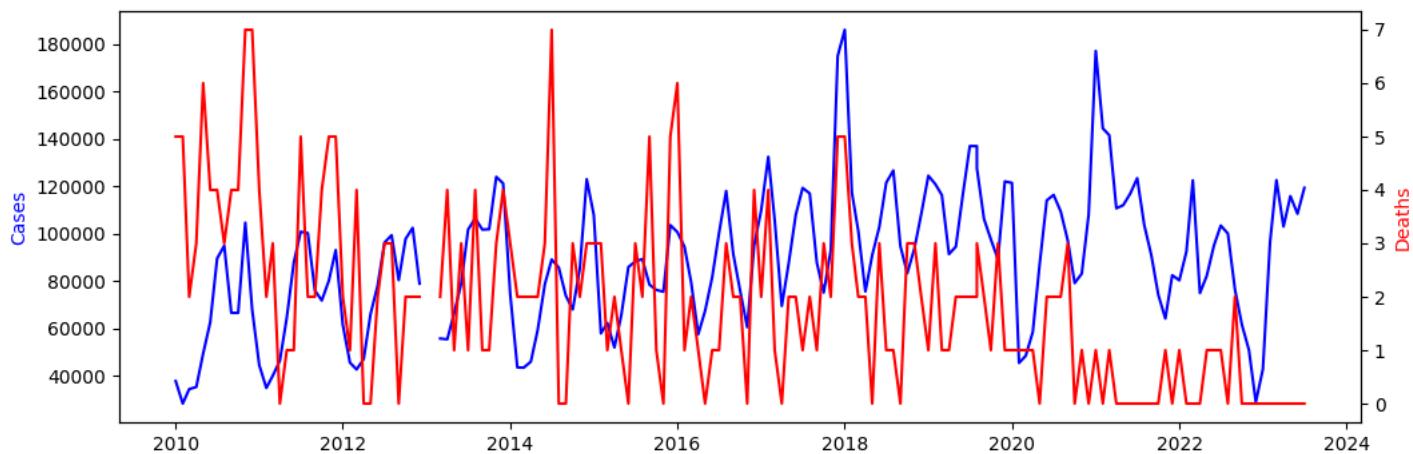


Figure 134: The Change of Infectious diarrhea Reports before 2023 June

The data provided includes the monthly cases and deaths of Infectious diarrhea in mainland China from January 2010 to June 2023. The number of cases appears to fluctuate over the years, with some months reporting higher numbers and others showing lower numbers.

From the data, we can observe certain patterns for the cases. In the earlier years, such as 2010 and 2011, there is a gradual increase in the number of cases reported each month. However, this trend seems to stabilize from 2012 to 2015, with relatively consistent numbers of cases reported.

A notable increase in cases can be seen from 2015 to early 2020. This period shows a surge in reported cases, peaking in early 2020. However, there is a subsequent decline in the number of cases reported from mid-2020 to mid-2021, followed by a gradual increase again from mid-2021 to mid-2023.

It is important to note that there are some months where negative numbers are reported for cases and deaths. These negative values could be erroneous data entries or represent missing data points. Further investigation is required to ascertain the validity of these values.

Regarding the monthly deaths, the numbers are generally lower than the cases reported. There are variations in the death toll, but the overall trend appears to be relatively stable throughout most of the years.

It is essential to consider various factors when interpreting these data. Seasonal and cyclical variations in cases and deaths could potentially be influenced by factors such as climate, population density, sanitation measures, and public health interventions. To gain a more comprehensive understanding, additional factors such as demographic information, environmental factors, and public health interventions should be analyzed.

Overall, the data presented in this study highlight the varying trends in monthly cases and deaths of Infectious diarrhea in mainland China from 2010 to 2023. These findings contribute to our understanding of the dynamics of the disease and can aid in formulating targeted interventions to mitigate its impact on public health.

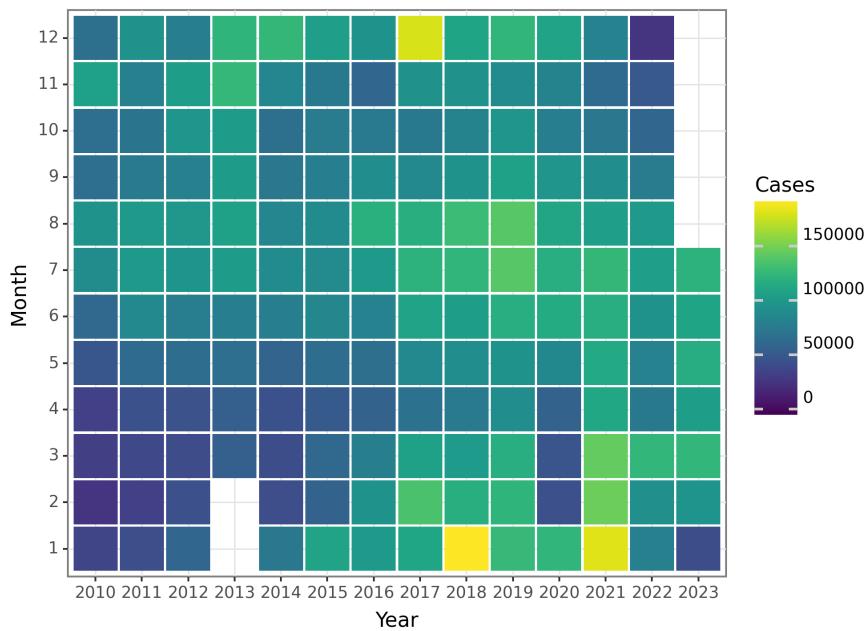


Figure 135: The Change of Infectious diarrhea Cases before 2023 June

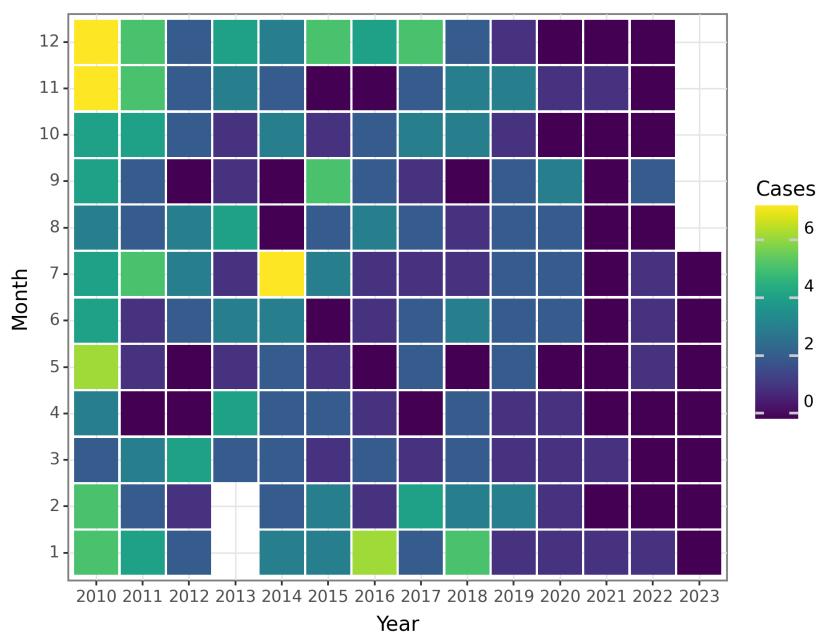


Figure 136: The Change of Infectious diarrhea Deaths before 2023 June

Hand foot and mouth disease

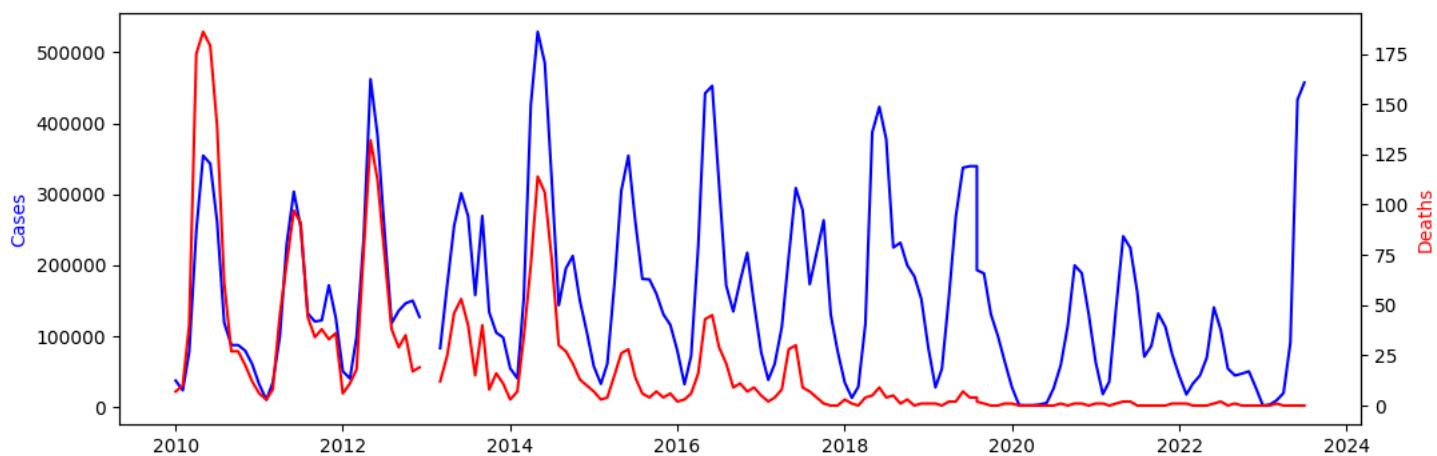


Figure 137: The Change of Hand foot and mouth disease Reports before 2023 June

The data provided presents the monthly cases and deaths of Hand Foot and Mouth Disease (HFMD) in mainland China from January 2010 to June 2023. These numbers give insight into the epidemiological patterns and trends of HFMD over this period.

Analyzing the time series data, we can observe certain patterns in the number of cases reported each month. From 2010 to 2014, there was a gradual increase in cases, with peaks occurring in the summer months, particularly in June and July. This seasonal trend indicates that HFMD is more prevalent during warmer months, which aligns with the known characteristics of the disease.

After reaching its peak in 2014, the number of cases experienced a fluctuating pattern, but generally remained relatively high until 2017. From 2017 onwards, there was a noticeable decline in cases, possibly due to increased awareness, preventive measures, and improved public health interventions. However, it is important to note that this decline might also be influenced by variations in reporting systems and surveillance practices.

Regarding deaths, it is evident that HFMD is generally a non-fatal disease, as the number of reported fatalities is considerably lower than the number of cases throughout the entire dataset. The pattern of deaths follows a similar seasonal trend to the number of cases, with peaks occurring in the summer months. However, it is reassuring to observe that the number of deaths remains relatively low and stable over the years.

It is crucial to interpret these findings with caution as additional information such as the age distribution, geographical variations, and the impact of interventions is necessary to provide a comprehensive analysis of HFMD in mainland China. Nevertheless, the data suggests that HFMD continues to be a public health concern, particularly during the summer months, and highlights the need for ongoing surveillance and prevention efforts to reduce the burden of the disease.

Further studies and analysis are warranted to better understand the underlying factors contributing to the observed patterns and to inform strategies for managing and controlling HFMD effectively.

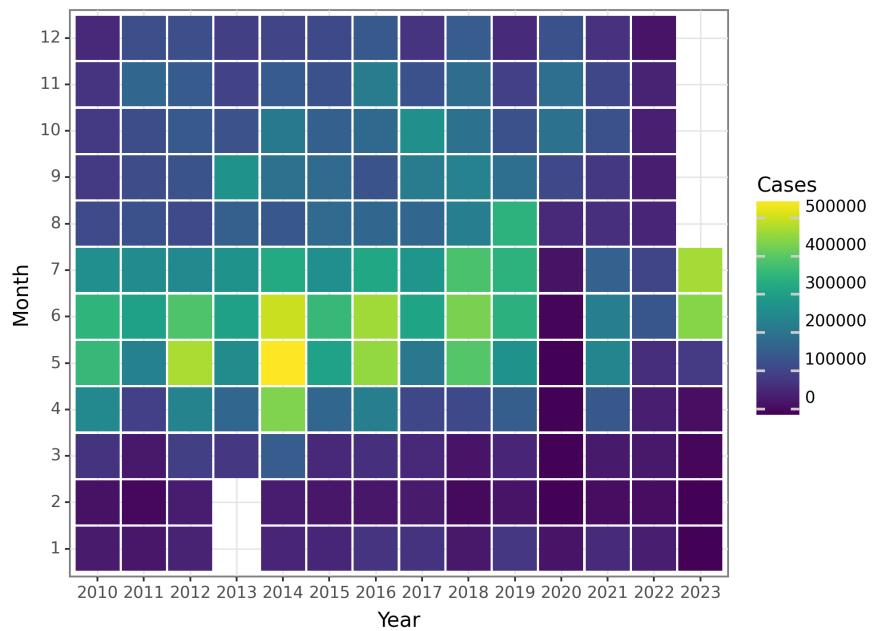


Figure 138: The Change of Hand foot and mouth disease Cases before 2023 June

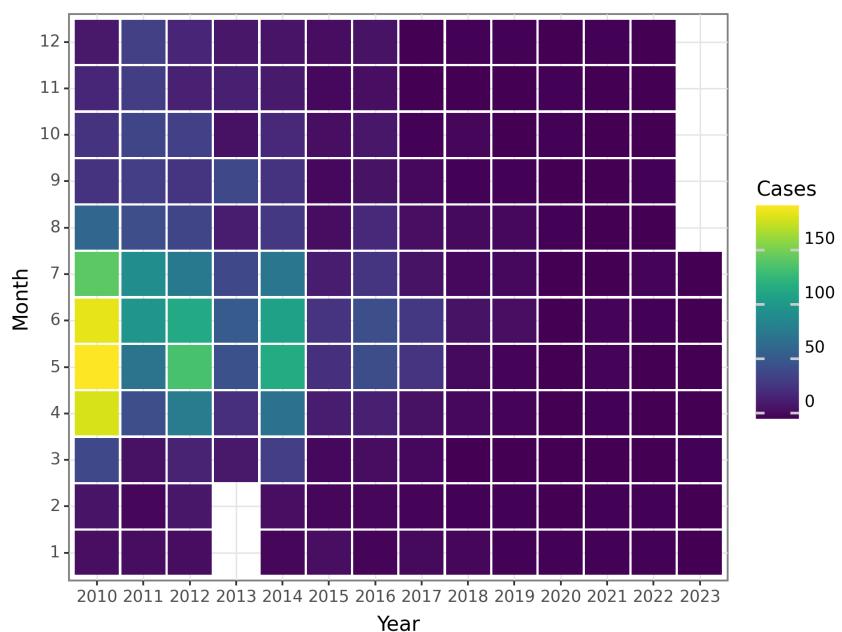


Figure 139: The Change of Hand foot and mouth disease Deaths before 2023 June