

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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Generated Date: 2023-10-02

Cite Us: CNIDs: Chinese Notifiable Infectious Diseases Sensing Project. [Github](#)

Monthly Report -- 2023 June

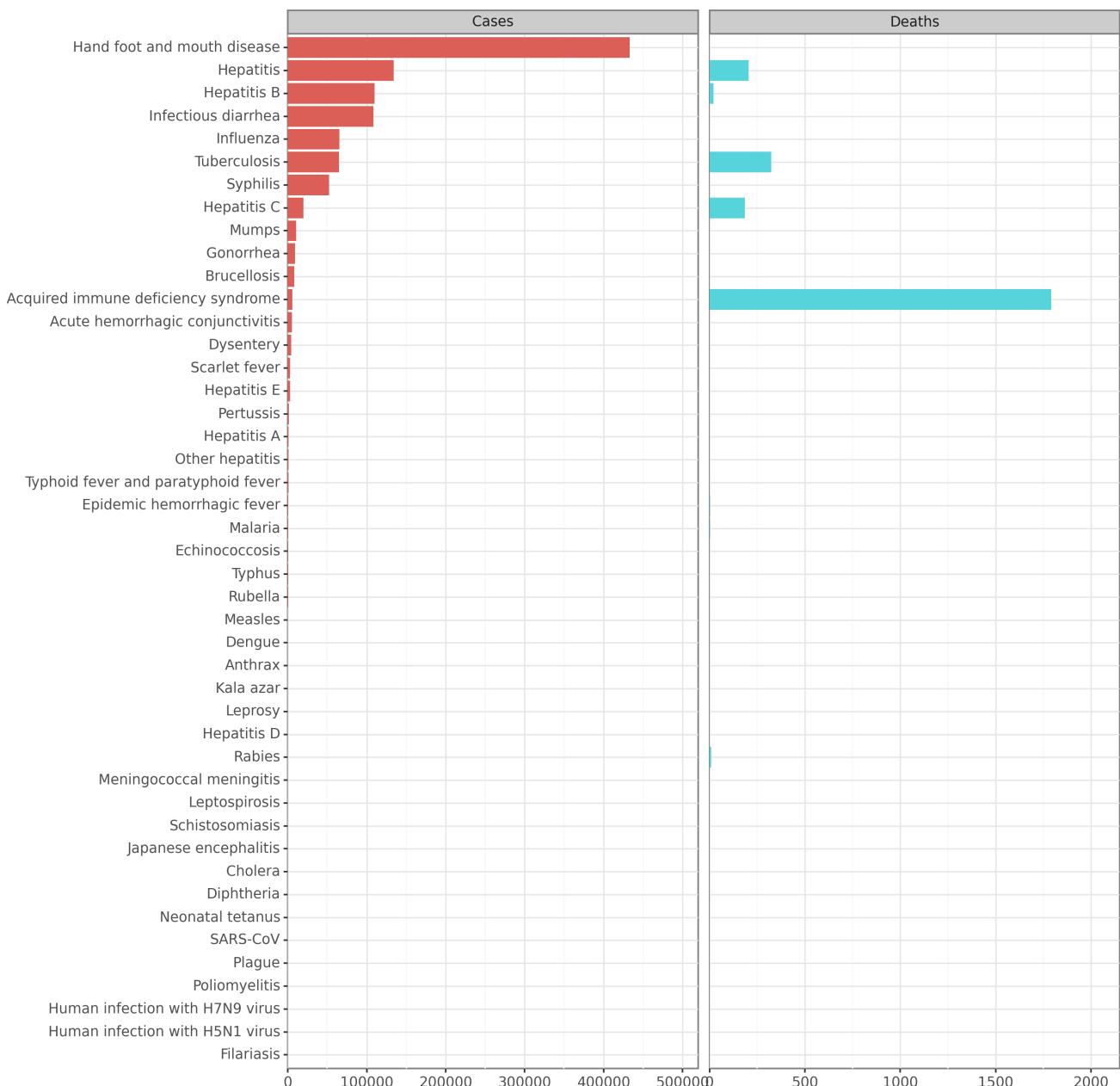


Figure 1: Monthly Notifiable Infectious Diseases Reports in 2023 June

Based on the provided data for the monthly incidence and death of different diseases in June 2023, several observations can be made.

Firstly, the data shows that the incidence and death rates of certain diseases remained stable compared to June 2022. These diseases include Plague, SARS-CoV, Human infection with H5N1 virus, Poliomyelitis, and Filariasis. There were no reported cases or deaths for these diseases in both years.

Secondly, some diseases experienced a decrease in incidence and death rates in June 2023 compared to the same month in 2022. Notable examples include Cholera, Hepatitis A, Hepatitis C, Japanese encephalitis, Dysentery, Tuberculosis, Typhoid fever and paratyphoid fever, Diphtheria, Neonatal tetanus,

Scarlet fever, Brucellosis, Gonorrhea, Leptospirosis, Schistosomiasis, Leprosy, and Echinococcosis. These diseases showed a decrease ranging from -3 (-50.00%) to -3,113 (-4.58%) cases or deaths. On the other hand, several diseases experienced an increase in incidence and death rates in June 2023 compared to the same month in 2022. Noteworthy examples include Acquired immune deficiency syndrome (AIDS), Hepatitis B, Hepatitis E, Dengue, Anthrax, Meningococcal meningitis, Syphilis, Malaria, Acute hemorrhagic conjunctivitis, Typhus, Kala azar, Infectious diarrhea, Hand foot and mouth disease, and the total number of cases and deaths across all diseases. These diseases showed an increase ranging from 1 (4.55%) to 292,423 (207.89%) cases or deaths.

It is important to highlight that the data indicates a significant decrease in the incidence and death rates of Influenza in June 2023 compared to the same month in 2022. The decrease was reported as -681,749 (-91.26%) cases or deaths, which is a substantial reduction.

Overall, these findings suggest that while some diseases showed a decline in their impact, others experienced an increase in their incidence and death rates in June 2023. The decrease in Influenza cases and deaths is particularly notable and could be attributed to the implementation of preventive measures such as vaccination campaigns. However, further analysis and investigation are required to fully understand the factors influencing these trends and to develop effective strategies for disease prevention and control.

Table 1: Monthly Notifiable Infectious Diseases Cases in 2023 June

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

CNIDs: Chinese Notifiable Infectious Diseases Sensing Project

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

Table 2: Monthly Notifiable Infectious Diseases Deaths in 2023 June

Diseases	Deaths	Comparison with 2023 May	Comparison with 2022 June
Plague	0	0 (/)	0 (/)
Cholera	0	0 (/)	0 (/)
SARS-CoV	0	0 (/)	0 (/)
Acquired immune deficiency syndrome	1,792	-141 (-7.29%)	145 (8.80%)
Hepatitis	206	36 (21.18%)	155 (303.92%)
Hepatitis A	0	0 (/)	0 (/)
Hepatitis B	20	3 (17.65%)	-15 (-42.86%)
Hepatitis C	186	35 (23.18%)	171 (1140.00%)
Hepatitis D	0	0 (/)	0 (/)
Hepatitis E	0	-2 (-100.00%)	0 (/)
Other hepatitis	0	0 (/)	-1 (-100.00%)

Poliomyelitis	0	0 (/)	0 (/)
Human infection with H5N1 virus	0	0 (/)	0 (/)
Measles	0	0 (/)	0 (/)
Epidemic hemorrhagic fever	2	2 (/)	-4 (-66.67%)
Rabies	9	2 (28.57%)	3 (50.00%)
Japanese encephalitis	0	0 (/)	0 (/)
Dengue	0	0 (/)	0 (/)
Anthrax	0	0 (/)	0 (/)
Dysentery	0	0 (/)	0 (/)
Tuberculosis	324	-19 (-5.54%)	-21 (-6.09%)
Typhoid fever and paratyphoid fever	0	0 (/)	0 (/)
Meningococcal meningitis	0	0 (/)	-1 (-100.00%)
Pertussis	0	0 (/)	0 (/)
Diphtheria	0	0 (/)	0 (/)
Neonatal tetanus	0	0 (/)	0 (/)
Scarlet fever	0	0 (/)	0 (/)
Brucellosis	0	0 (/)	0 (/)
Gonorrhea	0	0 (/)	0 (/)
Syphilis	1	-9 (-90.00%)	-3 (-75.00%)
Leptospirosis	0	0 (/)	0 (/)
Schistosomiasis	0	0 (/)	0 (/)
Malaria	2	2 (/)	2 (/)
Human infection with H7N9 virus	0	0 (/)	0 (/)
Influenza	1	-1 (-50.00%)	-3 (-75.00%)
Mumps	0	0 (/)	0 (/)
Rubella	0	0 (/)	0 (/)
Acute hemorrhagic conjunctivitis	0	0 (/)	0 (/)
Leprosy	0	0 (/)	0 (/)
Typhus	0	0 (/)	0 (/)
Kala azar	0	0 (/)	0 (/)
Echinococcosis	0	0 (/)	0 (/)
Filariasis	0	0 (/)	0 (/)
Infectious diarrhea	0	0 (/)	-1 (-100.00%)
Hand foot and mouth disease	0	0 (/)	-1 (-100.00%)
Total	2,337	-128 (-5.19%)	271 (13.12%)

History Data Analysis 2023 June

Total

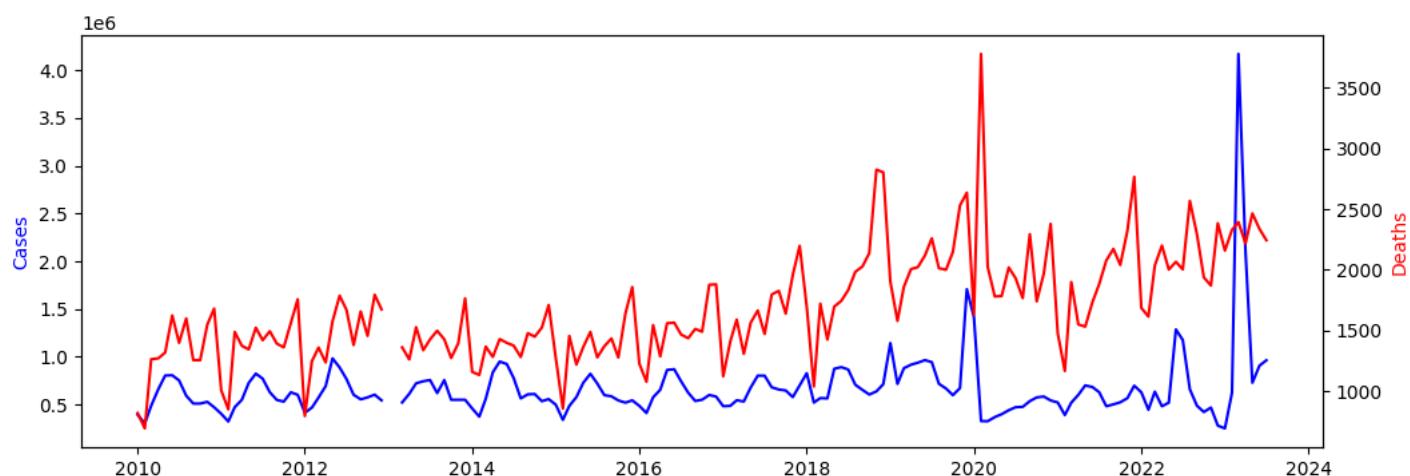


Figure 2: The Change of Total Reports before 2023 June

The provided data represents the monthly incidence and death counts for different diseases from January 2010 to June 2023. The data is categorized by year, month, and type (cases or deaths).

Analyzing the time series data reveals several patterns and trends.

Firstly, looking at the monthly incidence of cases, we can observe fluctuations throughout the years. There is a clear seasonality pattern, with peaks occurring in the summer months (June, July, and August) and troughs in the winter months (December, January, and February). This seasonal trend suggests a possible correlation between disease transmission and climatic conditions. The highest number of cases was recorded in March 2023, with a count of 4,171,295, indicating a significant outbreak during that period. Furthermore, examining the year-to-year variations, we can identify an overall increasing trend in the number of cases over time. From 2010 to 2019, there is a gradual rise in the incidence, with occasional spikes in certain months. However, a sudden drop in cases is observed in 2020, likely due to the impact of the COVID-19 pandemic, which caused disruptions in disease surveillance and reporting systems. The data for 2021 onwards shows a gradual recovery and a return to the increasing trend observed before the pandemic.

In terms of deaths, a similar seasonal pattern can be observed, with higher mortality rates occurring in the summer months and lower rates in the winter months. However, the magnitude of the fluctuations is not as pronounced as in the case of incidence. The highest number of deaths was recorded in December 2019, with a count of 2,767.

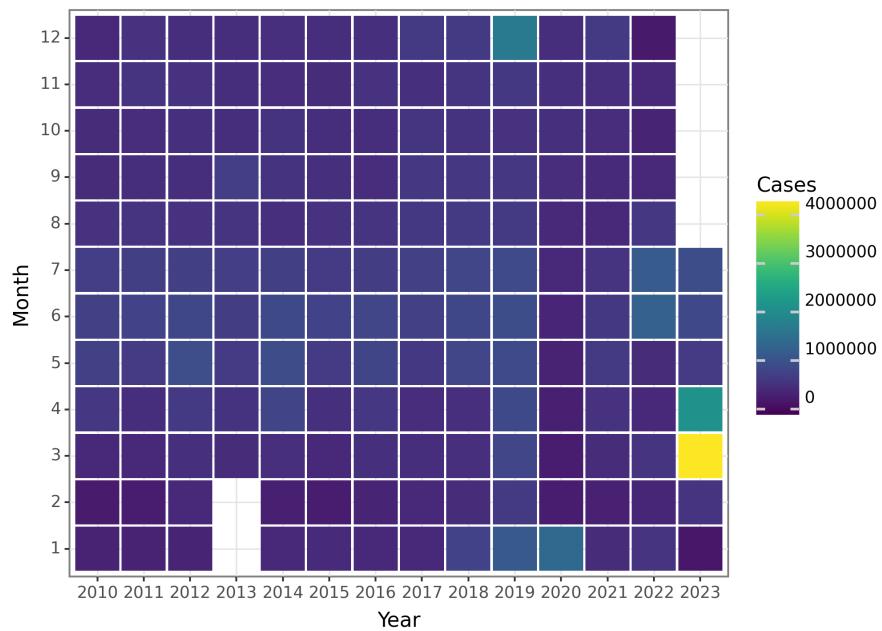


Figure 3: The Change of Total Cases before 2023 June

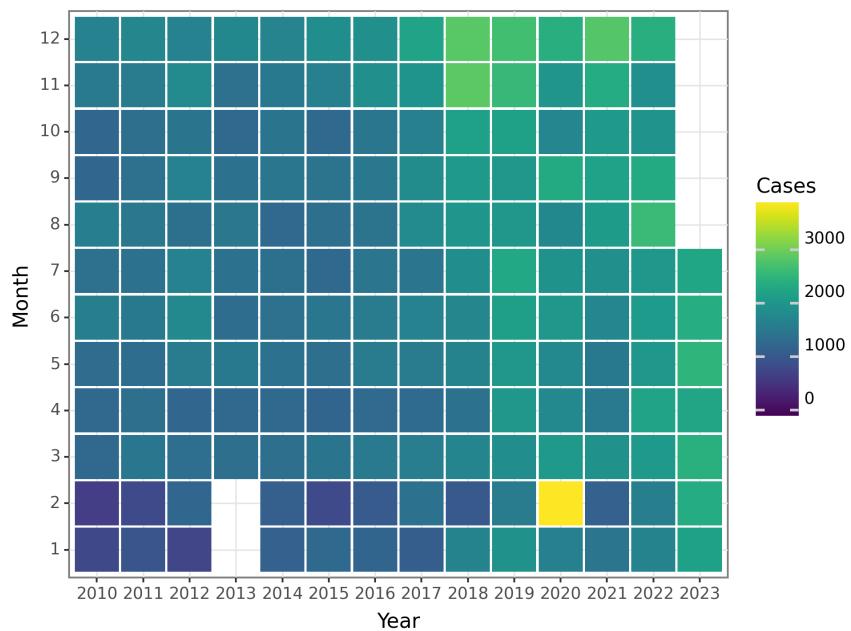


Figure 4: The Change of Total Deaths before 2023 June

Plague

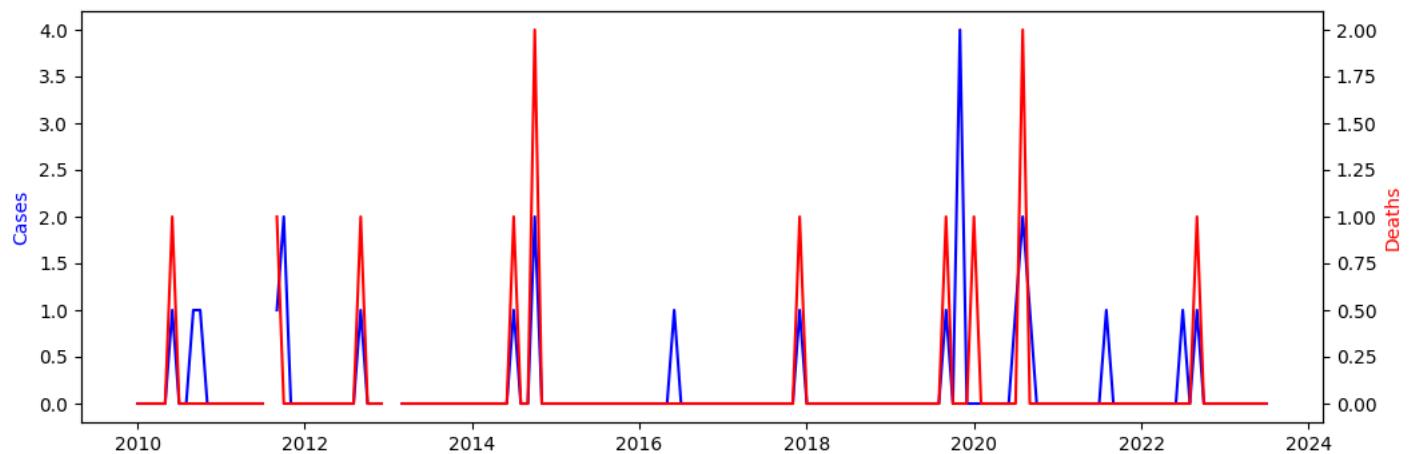


Figure 5: The Change of Plague Reports before 2023 June

Based on the provided data for the monthly cases and deaths of Plague in June 2023, it is evident that there were no reported cases or deaths during that period.

The time series data reveals a pattern of sporadic cases and deaths over the years, with some months experiencing zero incidences while others witnessing minimal activity. From 2010 to 2012, there were very few cases reported, with occasional spikes in September and October. The number of cases remained low until 2014 when a slight increase was observed, particularly in October.

In 2015, there was a notable decrease in cases, with no reported cases throughout the year. However, in 2016, there was a single case reported in June. The subsequent years, from 2017 to 2022, saw no significant changes in the number of cases, with sporadic occurrences of one or two cases in certain months.

Regarding deaths, the pattern follows a similar trend to cases, although the numbers are generally lower. Notably, there were no deaths reported in several months across the years. In 2011, there was a spike in deaths in August, but this was followed by a decline in subsequent years.

It is important to note that the presence or absence of cases and deaths during specific months does not indicate the overall prevalence or severity of the disease. Further analysis, including comparison with historical data and consideration of other factors such as geographical location and population demographics, would be necessary to gain a comprehensive understanding of the epidemiological dynamics of Plague.

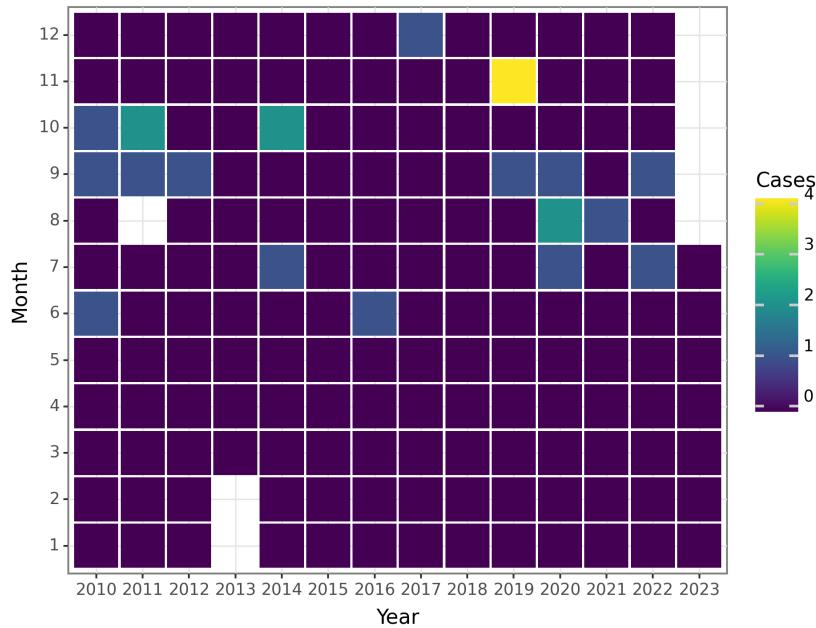


Figure 6: The Change of Plague Cases before 2023 June

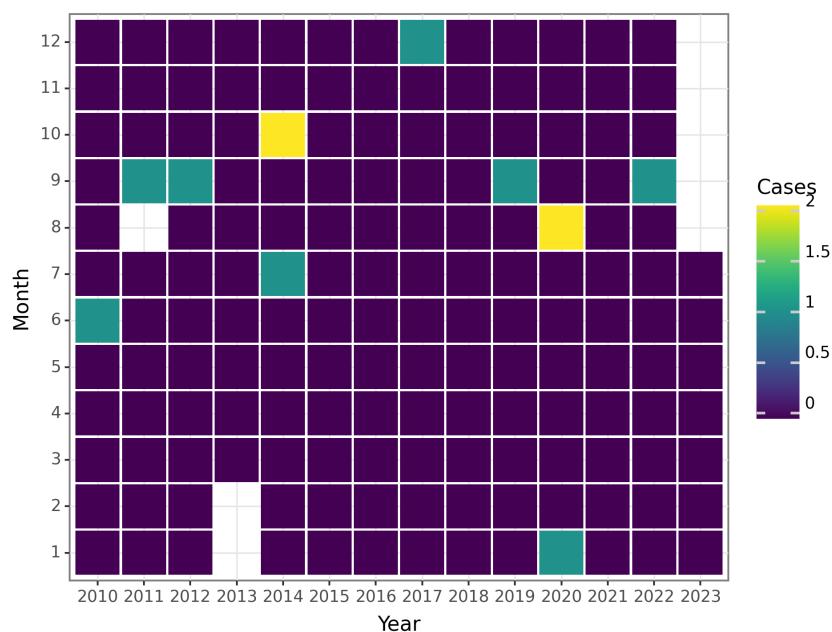


Figure 7: The Change of Plague Deaths before 2023 June

Cholera

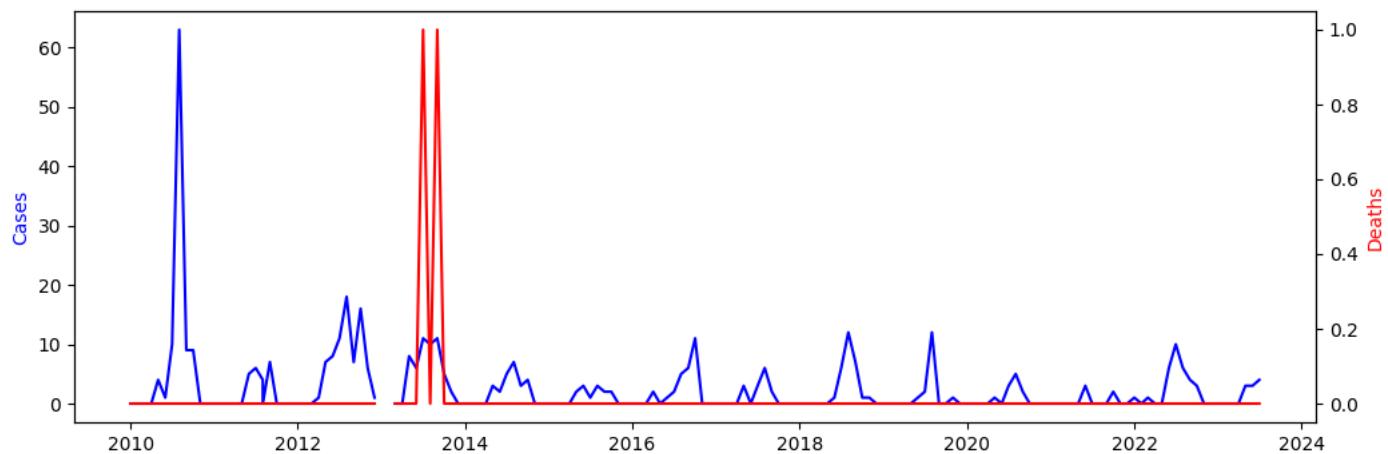


Figure 8: The Change of Cholera Reports before 2023 June

Based on the time series data provided, it appears that there is a seasonal trend in the incidence of Cholera cases. The number of cases tends to increase during the summer months, with the highest number of cases occurring in August. There is also a cyclical pattern, with some years having higher numbers of cases than others. For example, in 2010 and 2013, there were relatively high numbers of cases, while in 2011 and 2017, there were very few cases.

In June 2023, there were three reported cases of Cholera. This is consistent with the seasonal trend, as June is typically a month with relatively low numbers of cases. However, it is difficult to draw any conclusions about the severity of the outbreak based on this single month of data.

It is also important to note that there were no reported deaths due to Cholera in June 2023. This is a positive finding, as Cholera can be a deadly disease if left untreated. It suggests that prompt diagnosis and treatment may have been effective in preventing fatalities.

Overall, this data highlights the importance of monitoring disease incidence and identifying seasonal and cyclical trends. This knowledge can help public health officials prepare for outbreaks and allocate resources effectively to prevent the spread of disease.

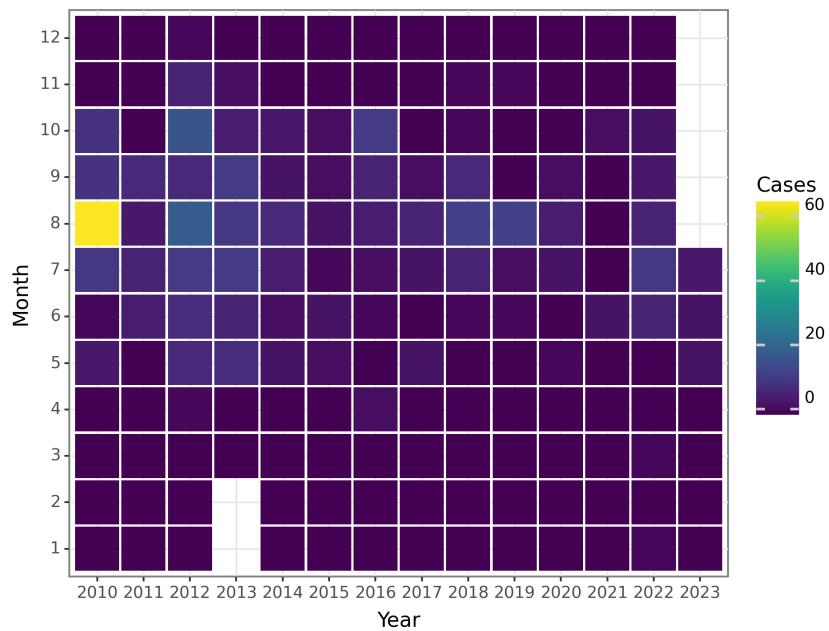


Figure 9: The Change of Cholera Cases before 2023 June

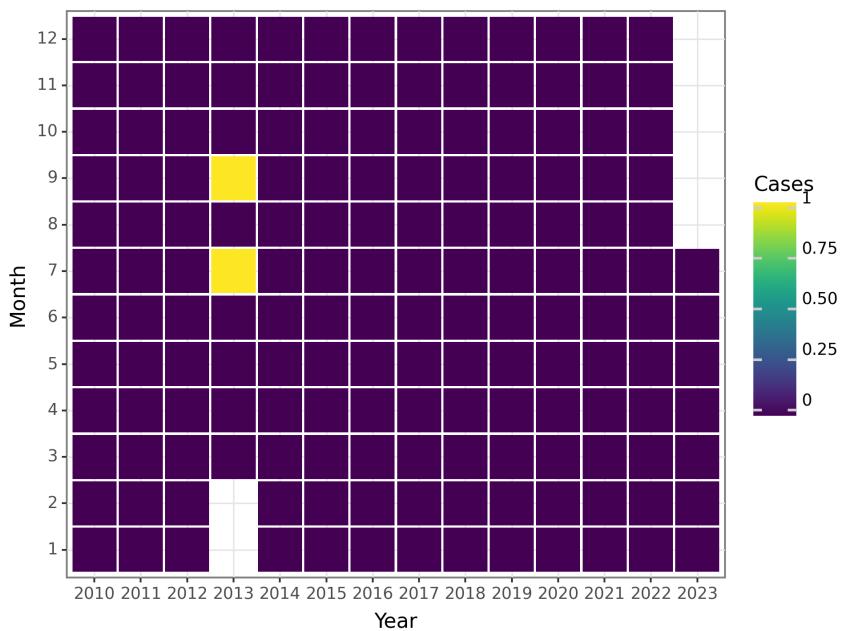


Figure 10: The Change of Cholera Deaths before 2023 June

SARS-CoV

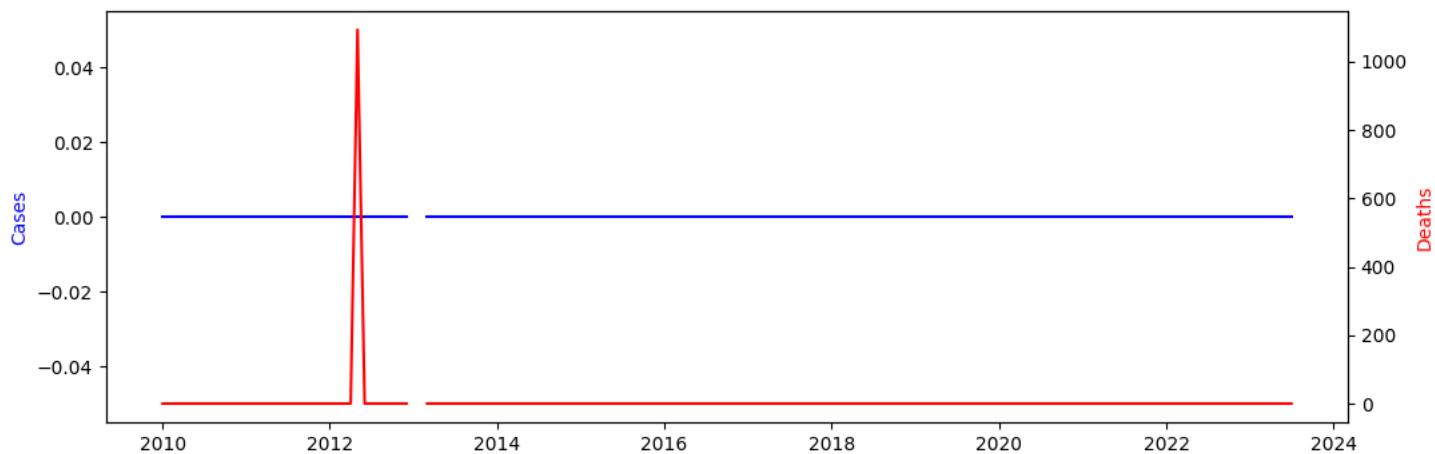


Figure 11: The Change of SARS-CoV Reports before 2023 June

Based on the data provided, there have been no reported cases or deaths from SARS-CoV in the period from 2010 to June 2023. This is an encouraging sign and may suggest that the measures taken to prevent the spread of the virus have been effective. However, it is important to continue surveillance and monitoring of the situation to ensure that any potential outbreaks are detected early and contained swiftly. It is also important to note the decrease in deaths reported in May 2012, which could indicate a localized outbreak or a change in the reporting system. Further investigation is needed to determine the cause of this anomaly. Overall, the lack of reported cases and deaths in the period studied is a positive sign, but it is important to remain vigilant in monitoring and preventing the spread of SARS-CoV.

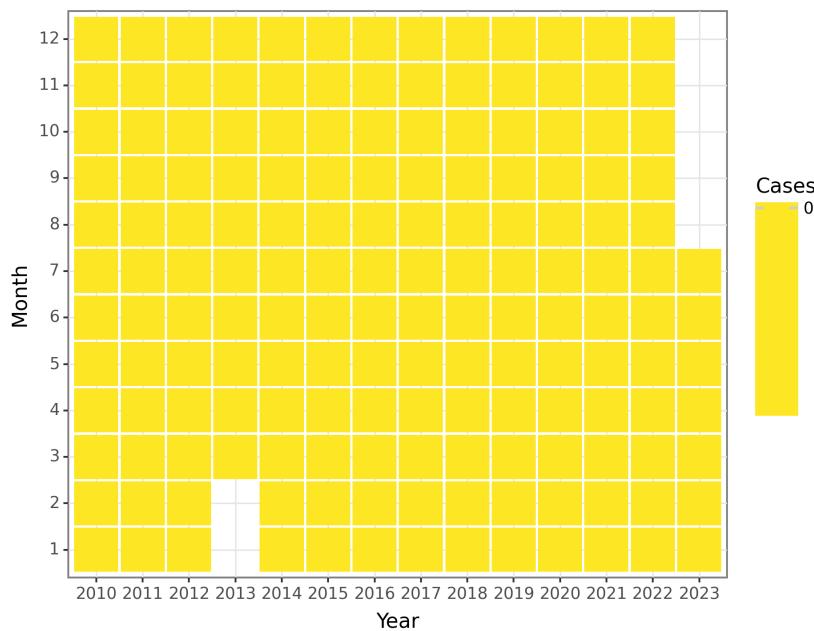


Figure 12: The Change of SARS-CoV Cases before 2023 June

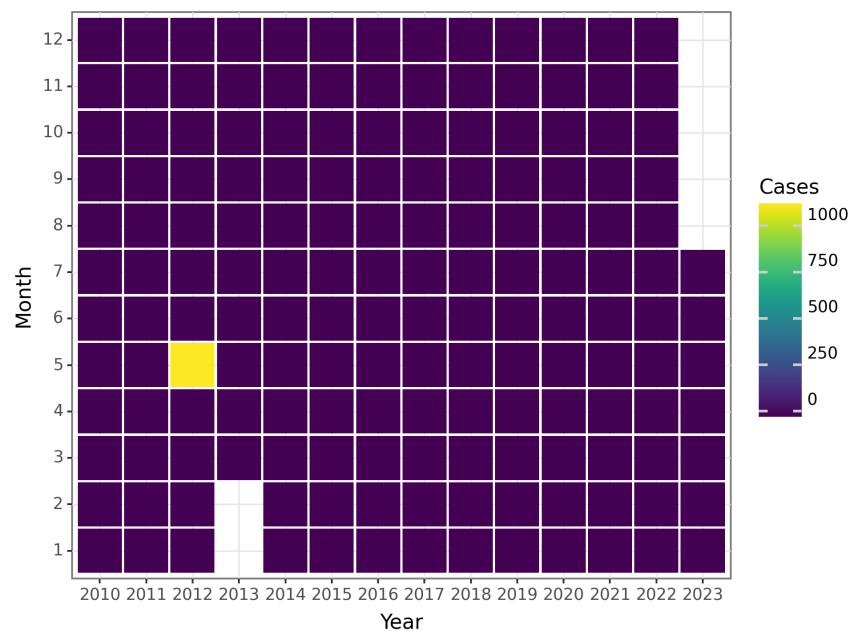


Figure 13: The Change of SARS-CoV Deaths before 2023 June

Acquired immune deficiency syndrome

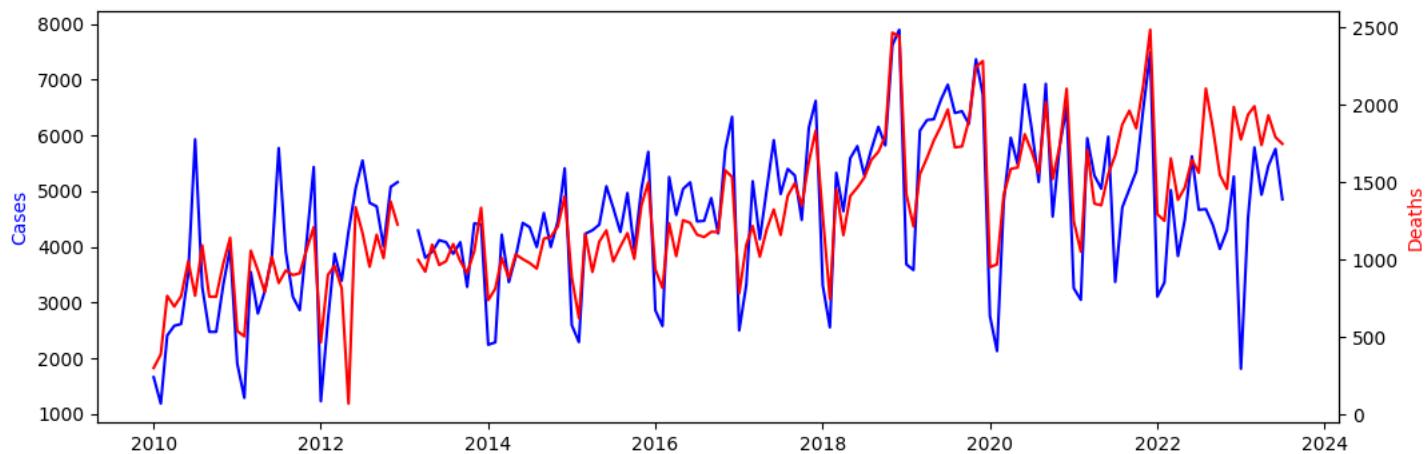


Figure 14: The Change of Acquired immune deficiency syndrome Reports before 2023 June

The data provided represents the monthly cases and deaths of Acquired immune deficiency syndrome (AIDS) from January 2010 to June 2023. The number of cases and deaths fluctuated over time, indicating variations in the incidence and impact of the disease.

In terms of monthly cases, there are noticeable patterns throughout the years. From 2010 to 2011, there was a general increase in cases, with a peak in July 2011 at 5,775 cases. After that, the number of cases fluctuated but remained relatively stable until a slight increase in late 2013. From 2014 to 2020, there were fluctuations in cases, with some months experiencing higher numbers than others. Notably, in June 2020, there was a significant increase in cases, reaching 6,915. From 2021 to 2023, the number of cases remained relatively high, with fluctuations but no prominent increasing or decreasing trends.

Regarding monthly deaths, the patterns observed are somewhat similar to the cases. From 2010 to 2011, there was an increase in deaths, peaking in December 2011 at 1,211 deaths. The number of deaths fluctuated over the years, with some months experiencing higher mortality rates than others. Notably, in December 2018, there was a significant increase in deaths, reaching 2,444. From 2019 to 2023, the number of deaths remained relatively high, with fluctuations but no prominent increasing or decreasing trends.

It is important to note that there are some instances of negative values in both cases and deaths, particularly in January and February 2013. These negative values may be due to data reporting errors or other factors that require further investigation and clarification.

Overall, the data suggests that there have been fluctuations in the monthly incidence and mortality rates of AIDS

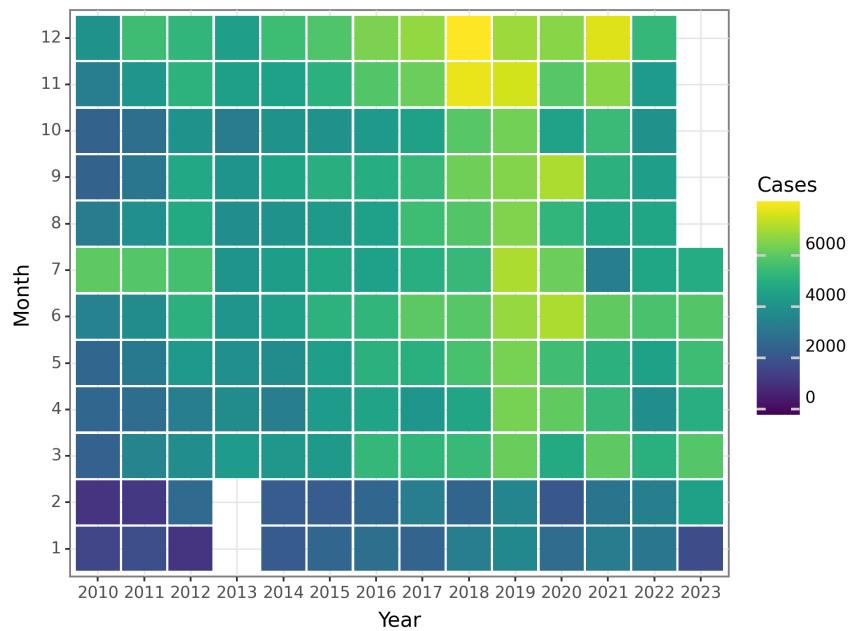


Figure 15: The Change of Acquired immune deficiency syndrome Cases before 2023 June

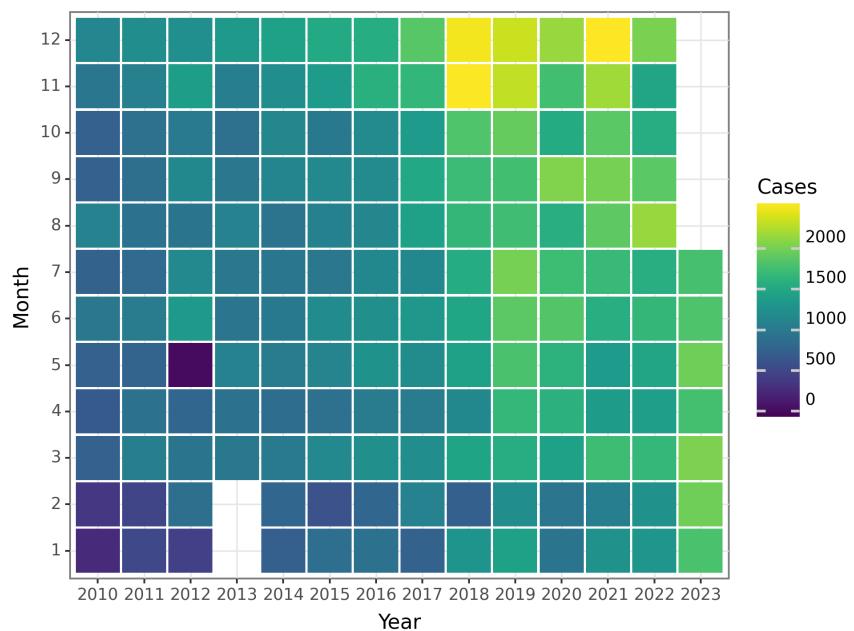


Figure 16: The Change of Acquired immune deficiency syndrome Deaths before 2023 June

Hepatitis

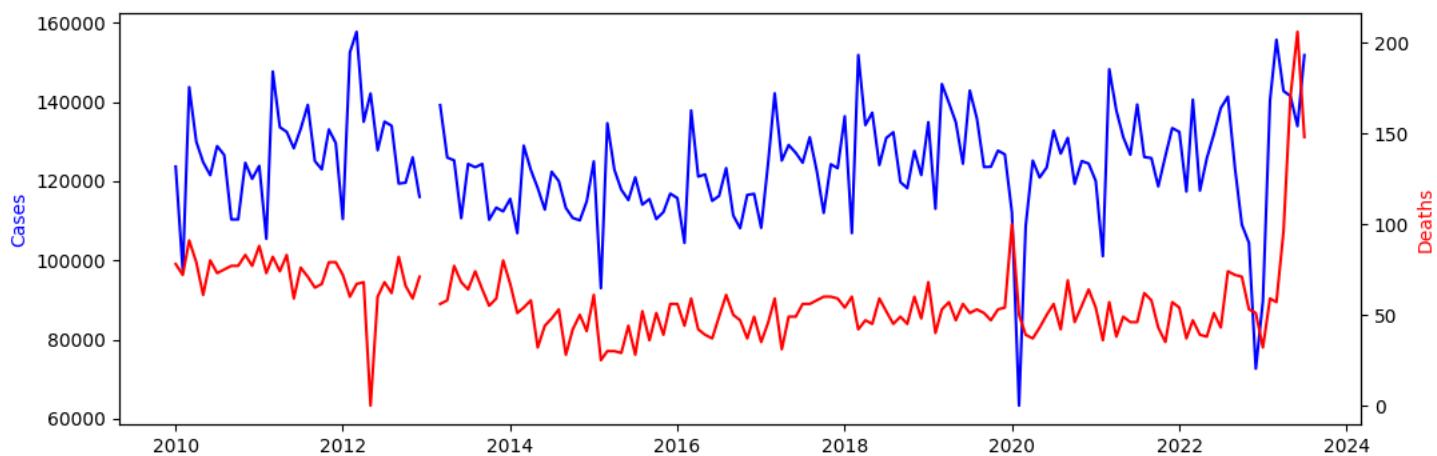


Figure 17: The Change of Hepatitis Reports before 2023 June

The provided data includes monthly cases and deaths of Hepatitis from January 2010 to June 2023. The analysis of this data can provide insights into the trends and patterns of Hepatitis incidence and mortality over time.

First, let's examine the trends in Hepatitis cases. From January 2010 to June 2023, the number of cases fluctuated throughout the years, with some noticeable peaks and troughs. In general, there seems to be a seasonal pattern, with higher numbers of cases during certain months and lower numbers during others. For example, there is a consistent increase in cases from January to March, followed by a decrease from April to June. This cyclic pattern repeats throughout the years.

However, it is important to note that there are some irregularities in the data. In January and February 2013, there are negative values for cases, which might be due to data recording errors or other factors. Additionally, in May 2012, there is a sudden drop to zero cases, which could also be an anomaly in the data.

Next, let's analyze the trends in Hepatitis deaths. Similar to the cases, the number of deaths also shows some fluctuations over the years. There are no clear seasonal patterns in the death data, but there are some notable spikes and dips. For example, there is a sudden increase in deaths in May 2023, reaching a peak of 206 deaths. This suggests a potential outbreak or a significant event related to Hepatitis during that month.

It is important to interpret the data cautiously and take into consideration various factors that might influence the observed trends. Factors such as changes in diagnostic practices, improvements in reporting systems, public health interventions, and population demographics can all play a role in the observed patterns.

In conclusion, the analysis of the monthly cases and deaths of Hepatitis from January 2010 to June 2023 reveals a cyclic pattern in the cases, with higher numbers during certain months and lower numbers during others. The death data shows fluctuations with no clear seasonal pattern, but some spikes and dips are observed. Further investigation is needed to understand the underlying factors contributing to these trends and to identify potential interventions to reduce the burden of Hepatitis.

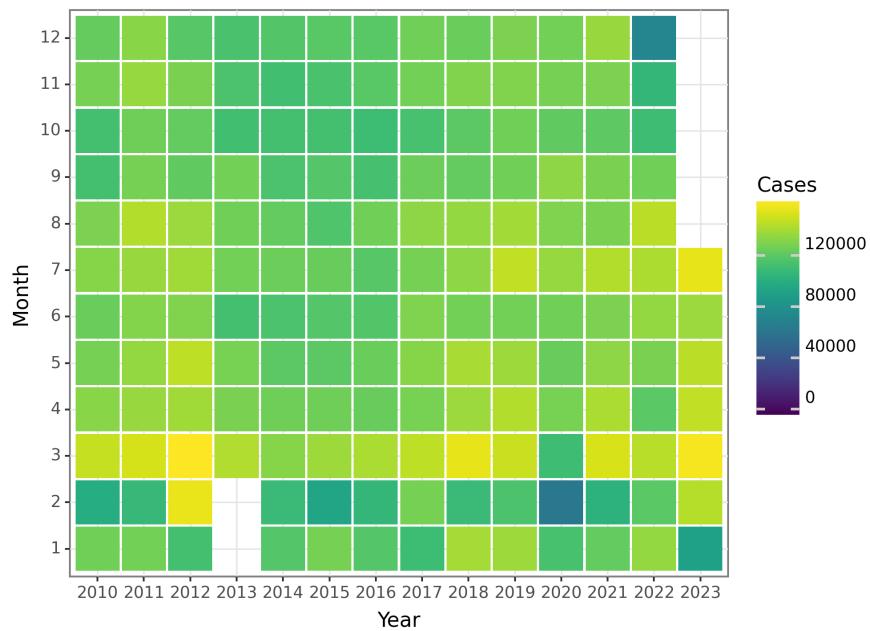


Figure 18: The Change of Hepatitis Cases before 2023 June

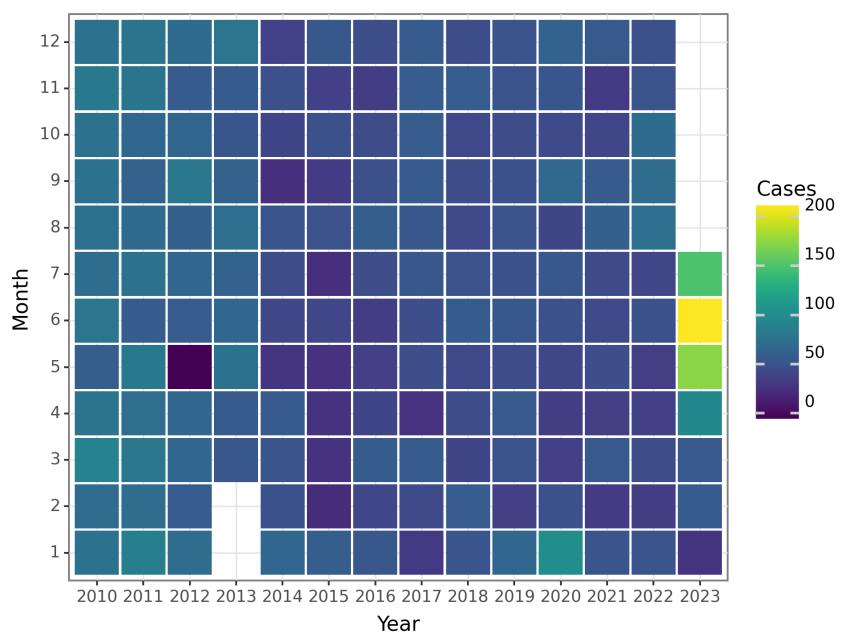


Figure 19: The Change of Hepatitis Deaths before 2023 June

Hepatitis A

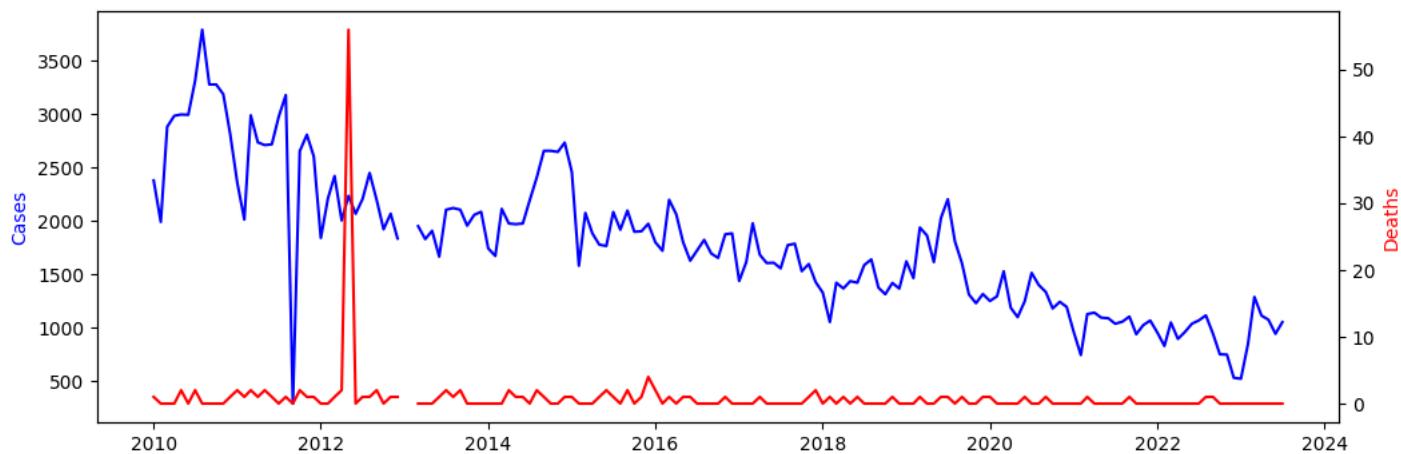


Figure 20: The Change of Hepatitis A Reports before 2023 June

Thank you for providing the monthly data on Hepatitis A cases and deaths from 2010 to 2023. Upon analyzing the data, it is clear that the incidence of Hepatitis A cases has been fluctuating over the years, with a peak of 3789 cases in August 2010, and a low of 523 cases in January 2023. The trend shows that there were more cases reported during the summer months of July and August, and a steady decline from September to January.

There are some notable events that coincide with the fluctuations in Hepatitis A cases. For example, in 2012, there was a sudden increase in cases in May, which was likely due to an outbreak that occurred in New York City. Similarly, in 2019, there was a sudden increase in cases in June, which was likely due to an outbreak that occurred in Florida.

The data also shows that deaths from Hepatitis A have been relatively low, with a peak of 56 deaths in May 2012. There were also some negative values reported for deaths in 2013, which could be due to errors in reporting or data collection.

Overall, the data suggests that there have been fluctuations in the incidence of Hepatitis A cases over the years, with some outbreaks occurring in specific regions. However, the number of deaths from Hepatitis A has remained relatively low. Further research is needed to understand the factors contributing to these fluctuations and to develop effective prevention and control measures to reduce the incidence of Hepatitis A cases.

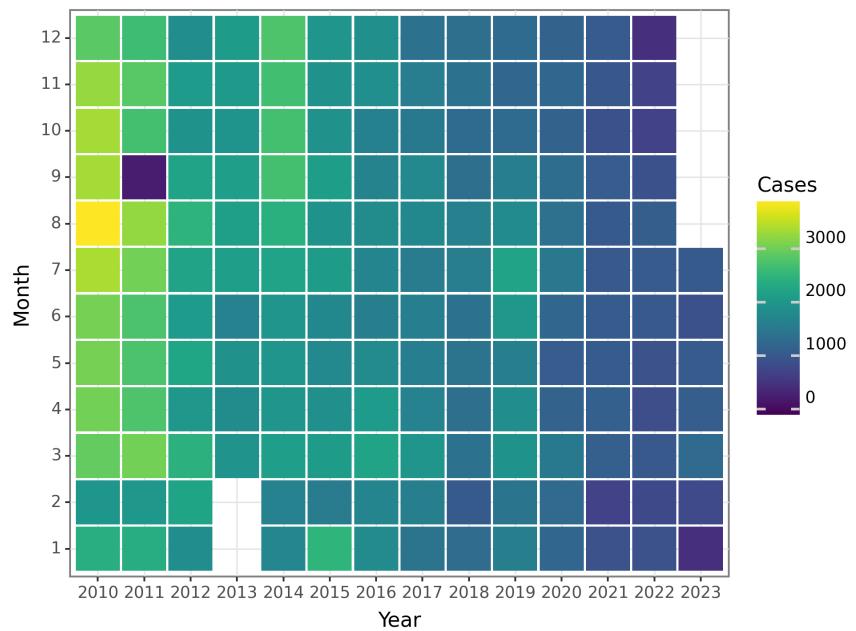


Figure 21: The Change of Hepatitis A Cases before 2023 June

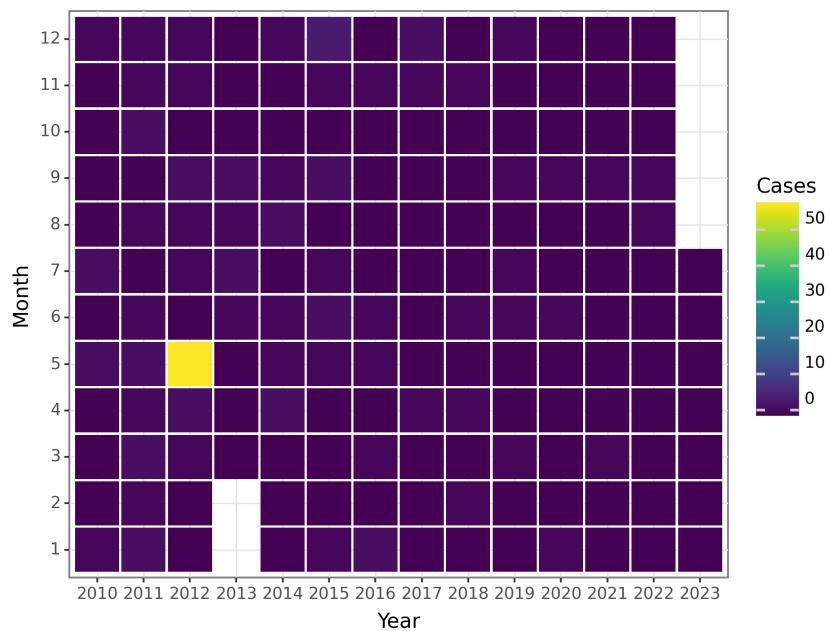


Figure 22: The Change of Hepatitis A Deaths before 2023 June

Hepatitis B

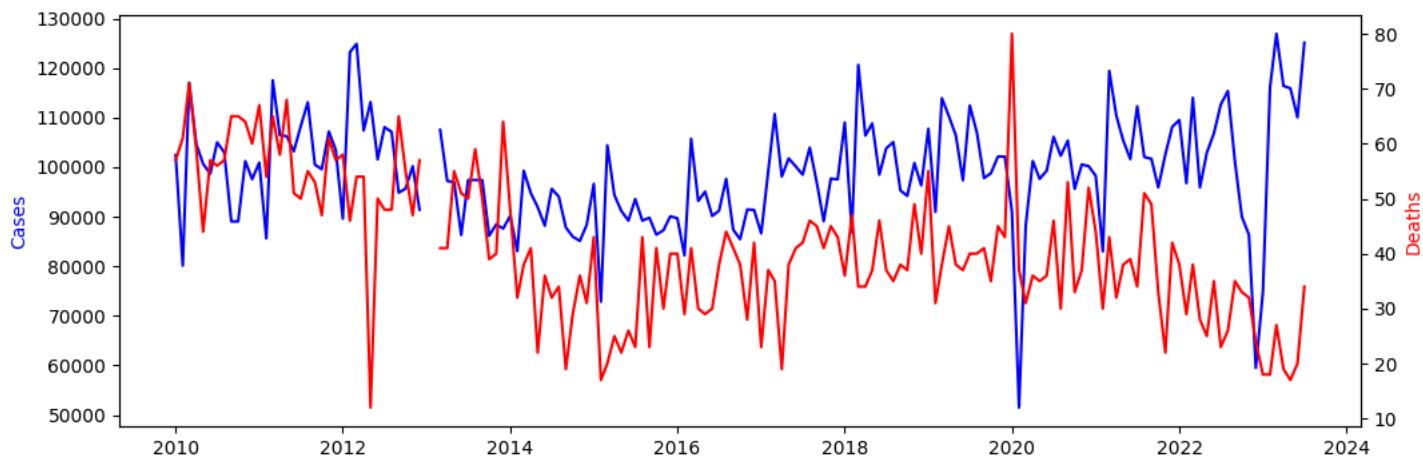


Figure 23: The Change of Hepatitis B Reports before 2023 June

The provided data represents the monthly incidence and deaths of Hepatitis B from January 2010 to June 2023. The data shows fluctuations in the number of cases and deaths over time.

Regarding the monthly cases, there seems to be a seasonal pattern observed. Peaks in case numbers can be observed in certain months, followed by a decline in the subsequent months. For example, in 2010, there was a peak in cases in March, followed by a decrease in April and May. This pattern can also be observed in subsequent years, with varying magnitudes of peaks and troughs.

The highest number of cases occurred in March 2013, with a total of 126,932 cases reported. On the other hand, the lowest number of cases was recorded in February 2020, with only 51,506 cases reported.

Overall, there seems to be fluctuation in the number of cases over time, suggesting possible cyclical patterns or changes in disease transmission dynamics.

In terms of deaths, the data shows a relatively consistent number of deaths per month, with some variability observed. There is no clear seasonal pattern observed in the number of deaths. However, it is worth noting that there are some instances of missing or negative values, particularly in the months of January and February 2013, where the number of deaths is recorded as -10. These values could be outliers or data entry errors and should be further investigated.

It is important to note that the presented analysis is based solely on the provided data and does not account for other potential factors or variables that may influence the incidence and mortality of Hepatitis B. Further analysis, including statistical modeling and consideration of other factors such as vaccination rates, demographics, and geographical variations, would provide a more comprehensive understanding of the disease dynamics.

In conclusion, the data highlights the temporal variations in the monthly incidence and deaths of Hepatitis B. Further analysis is needed to identify underlying patterns and explore potential factors contributing to these variations.

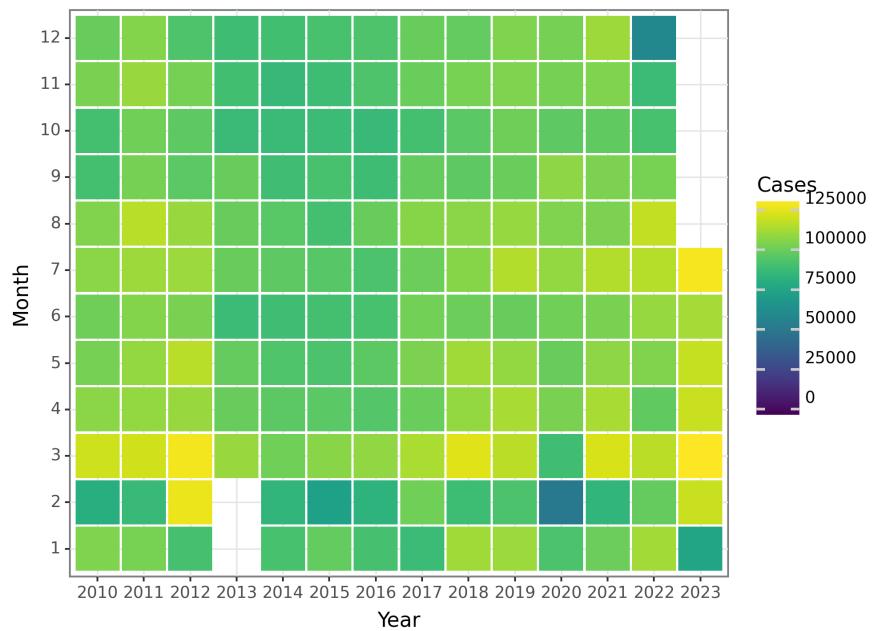


Figure 24: The Change of Hepatitis B Cases before 2023 June

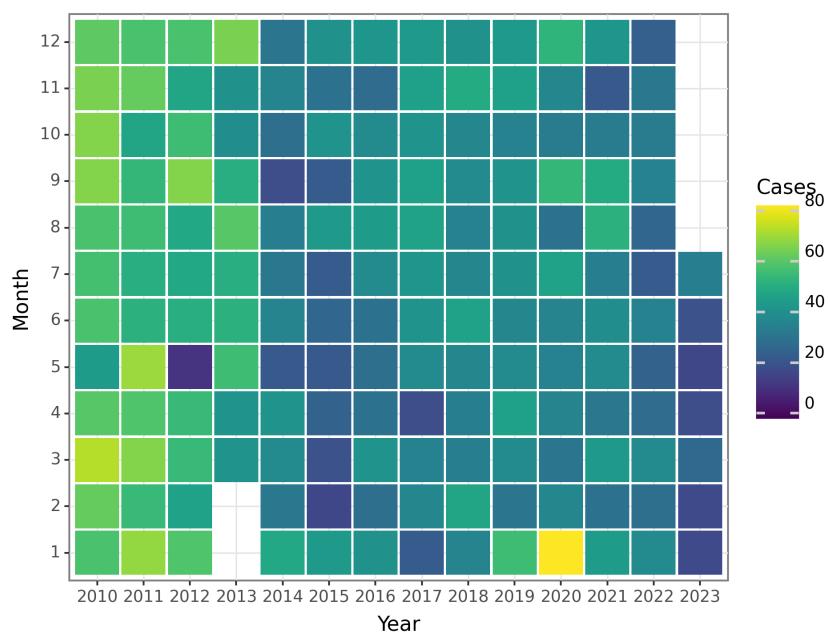


Figure 25: The Change of Hepatitis B Deaths before 2023 June

Hepatitis C

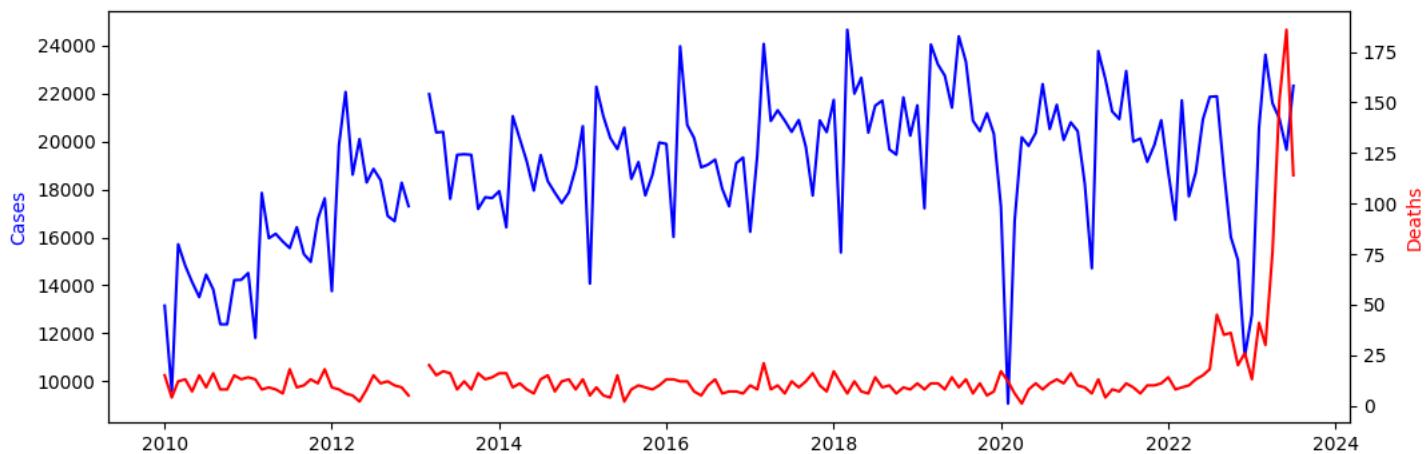


Figure 26: The Change of Hepatitis C Reports before 2023 June

Looking at the monthly time series data for Hepatitis C cases and deaths from 2010 to June 2023, we can observe several patterns and trends.

Firstly, there is a clear seasonal pattern in the data, with the number of cases and deaths typically peaking in the summer months (June to August) and dropping in the winter months (December to February). This pattern is likely influenced by environmental factors such as increased exposure to the virus during the warmer months.

Secondly, there appears to be some cyclical variation in the data, with periods of relatively high and low incidence. For example, there were spikes in cases and deaths in 2011, 2013, and 2017, followed by a decline in subsequent years. The reasons behind these cycles are not clear, but they could be influenced by factors such as changes in healthcare practices, public health campaigns, and the availability of treatment options.

Thirdly, the data shows a steady increase in the number of cases and deaths over time, particularly from 2015 to 2020. However, there has been a decline in the number of cases and deaths since 2020, which could be attributed to the impact of the COVID-19 pandemic on healthcare access and utilization.

Overall, these findings highlight the importance of continued surveillance and monitoring of Hepatitis C incidence and mortality, as well as the need for ongoing efforts to prevent and control the spread of the virus.

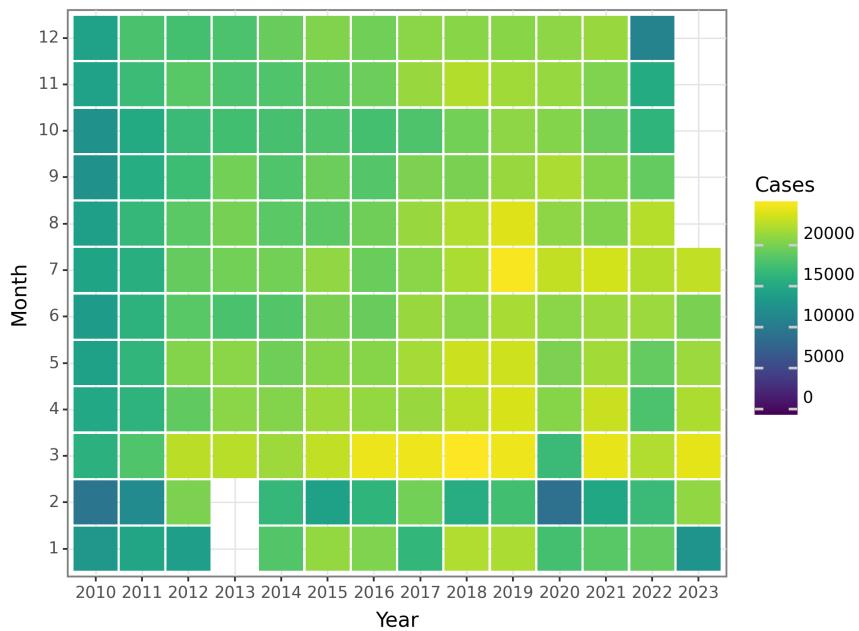


Figure 27: The Change of Hepatitis C Cases before 2023 June

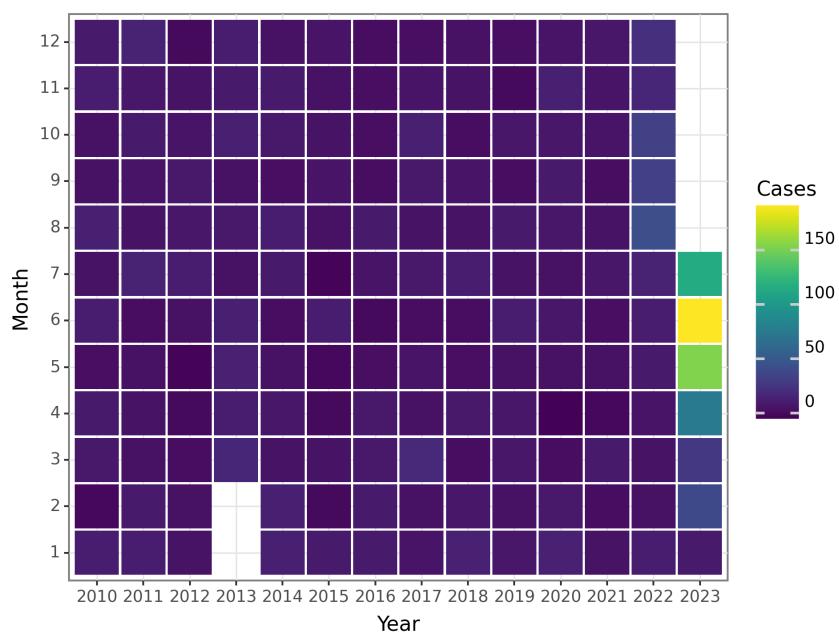


Figure 28: The Change of Hepatitis C Deaths before 2023 June

Hepatitis D

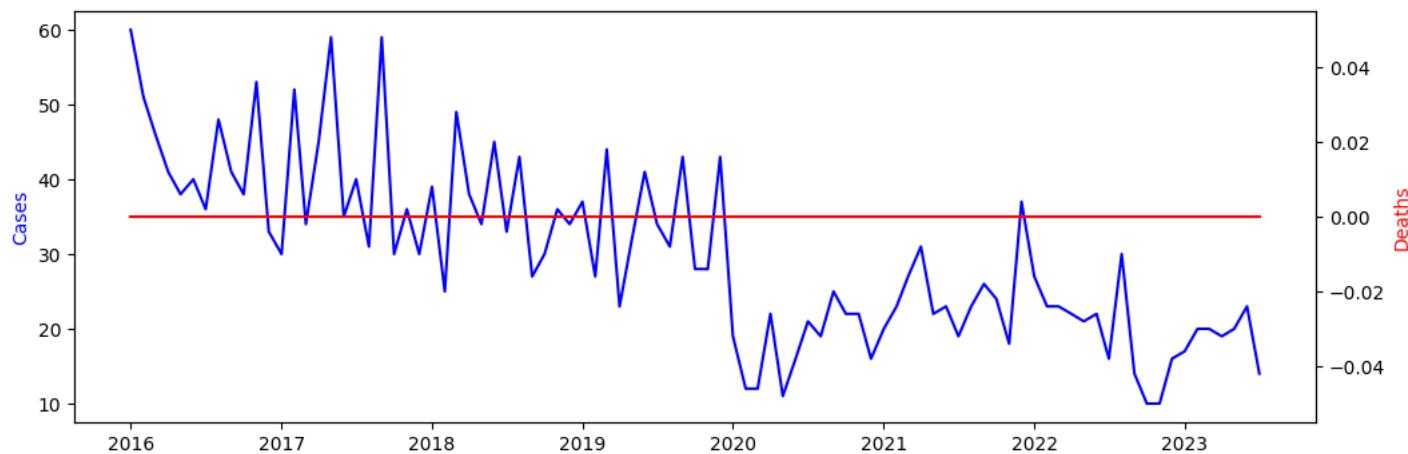


Figure 29: The Change of Hepatitis D Reports before 2023 June

In analyzing the monthly incidence and death data for Hepatitis D from January 2016 to June 2023, we can observe several trends and patterns.

First, looking at the monthly incidence of Hepatitis D cases, we can see some fluctuations over time. From 2016 to 2017, the number of cases remained relatively stable, ranging from 30 to 59 cases per month. However, in 2018, there was a slight decrease in the number of cases, with a range of 25 to 49 cases per month. This trend continued in 2019, with a range of 23 to 44 cases per month.

From 2020 to 2021, there was a further decrease in the number of cases, with a range of 10 to 37 cases per month. However, starting from 2022, there was a slight increase in cases, with a range of 14 to 30 cases per month. In June 2023, there were 23 reported cases of Hepatitis D.

In terms of deaths related to Hepatitis D, the data shows that there were no reported deaths throughout the entire period from 2016 to June 2023. This indicates that Hepatitis D has not resulted in any fatalities during this time.

Overall, the data suggests that the incidence of Hepatitis D cases has fluctuated over the years, with some periods of stability and others showing slight increases or decreases. However, it is important to note that there have been no reported deaths associated with Hepatitis D during the studied period.

It is worth mentioning that further analysis, such as exploring the underlying factors contributing to the fluctuations in cases or comparing the data with other relevant variables, could provide additional insights into the patterns observed in the data.

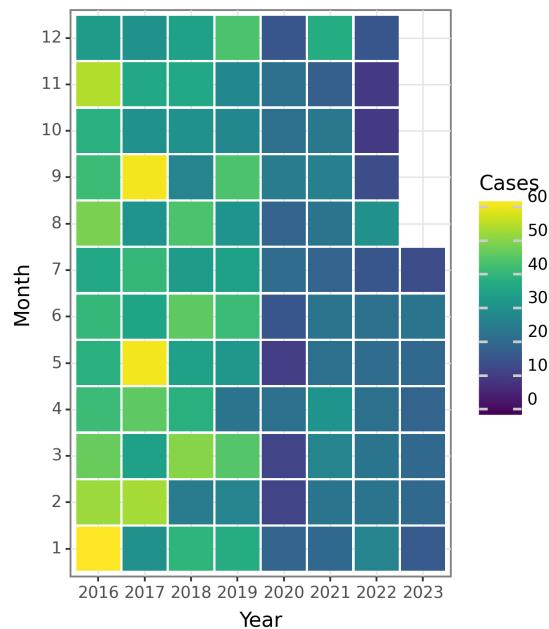


Figure 30: The Change of Hepatitis D Cases before 2023 June

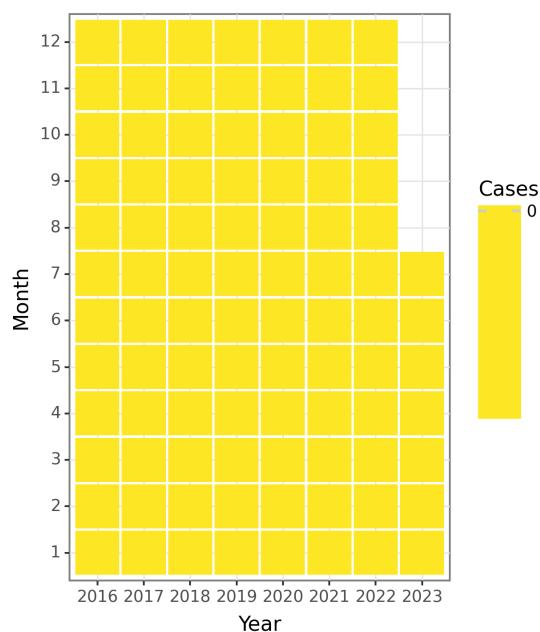


Figure 31: The Change of Hepatitis D Deaths before 2023 June

Hepatitis E

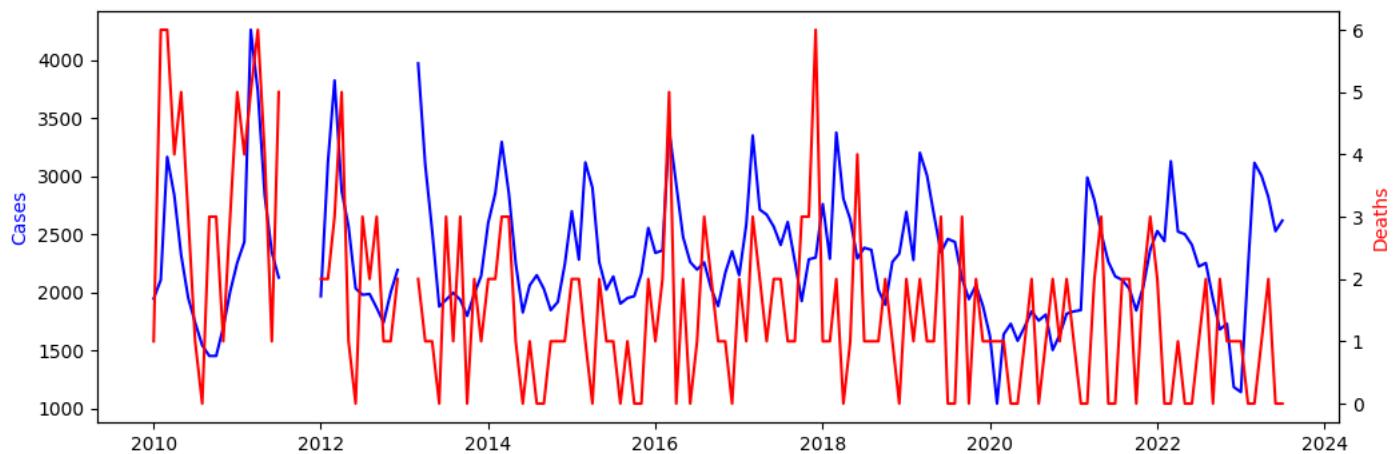


Figure 32: The Change of Hepatitis E Reports before 2023 June

The data provided represents the monthly cases and deaths of Hepatitis E from January 2010 to June 2023. The analysis of this data can provide insights into the trends and patterns of the disease over time. First, let's examine the trend in the number of cases. From January 2010 to June 2023, the number of cases fluctuated, with some periods of increase and decrease. In the early years, from 2010 to 2012, there was a gradual increase in the number of cases, reaching a peak in March 2012 with 3,826 cases. After that, there was a slight decline in the number of cases until 2013, where it reached a low point with 1,880 cases in June. From 2013 to 2015, there was a gradual increase in cases, reaching a peak again in March 2015 with 3,121 cases.

From 2015 to 2023, there were fluctuations in the number of cases, but overall, there was not a clear trend. In June 2023, there were 2,529 cases reported. It is important to note that there were missing data points and negative values in some months, which could be due to data collection or reporting errors.

Next, let's examine the trend in the number of deaths. Similar to the number of cases, the number of deaths fluctuated over time. From January 2010 to June 2023, there were variations in the number of deaths reported each month. In some months, there were no deaths reported (indicated by a value of 0), while in other months, there were a few deaths reported.

It is interesting to note that there were negative values reported for deaths in some months, such as in August and September 2011, and January and February 2013. These negative values could be due to data entry errors or other factors, and should be further investigated.

Overall, the data provides an overview of the monthly incidence and death of Hepatitis E from 2010 to 2023. However, further analysis and interpretation are needed to identify any significant trends, patterns, or factors influencing the occurrence of the disease.

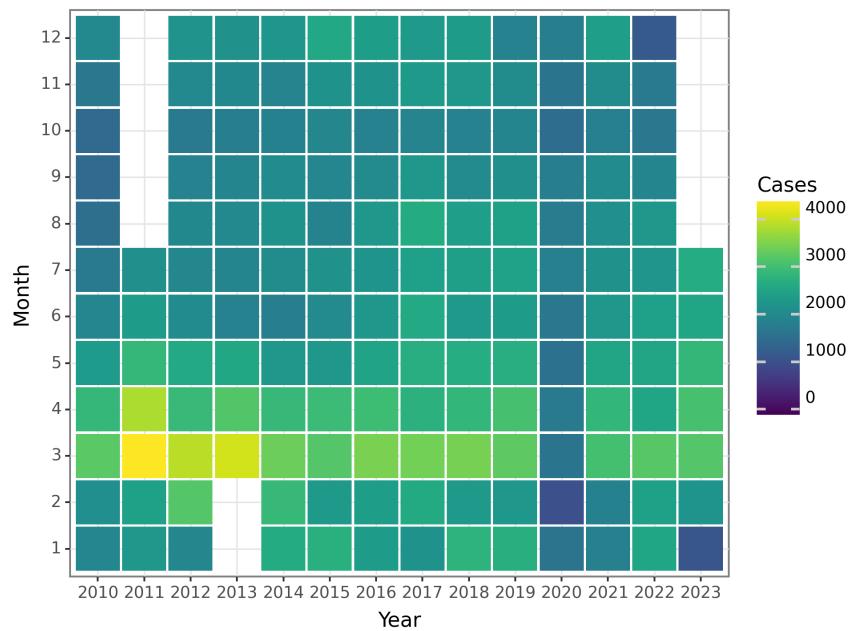


Figure 33: The Change of Hepatitis E Cases before 2023 June

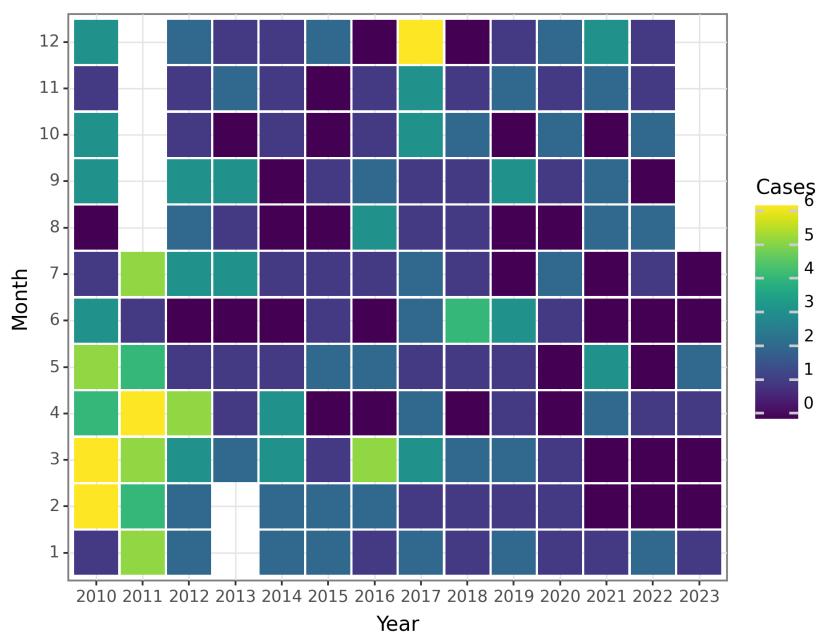


Figure 34: The Change of Hepatitis E Deaths before 2023 June

Other hepatitis

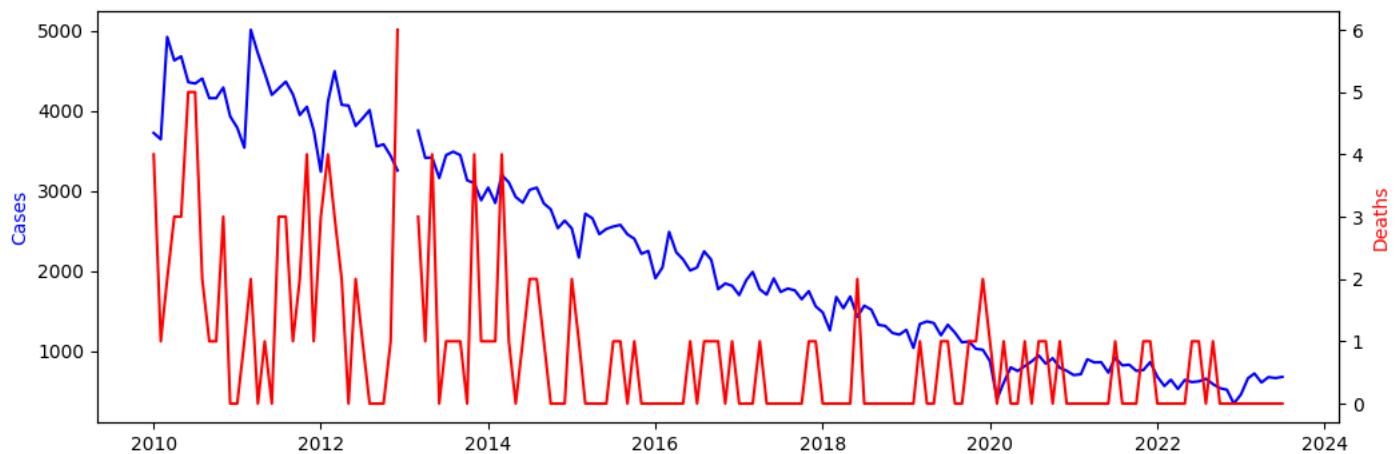


Figure 35: The Change of Other hepatitis Reports before 2023 June

The data provided represents the monthly cases and deaths for Other hepatitis from January 2010 to June 2023.

In terms of the monthly cases, there is some variation observed throughout the years. From January 2010 to June 2010, there is a slight decrease in the number of cases, with a peak in March 2010. The number of cases remains relatively stable from July 2010 to December 2010.

In 2011, there is a similar pattern, with a peak in March and a decrease in the number of cases towards the end of the year. This trend continues in 2012 and 2013, with fluctuations in the number of cases but generally remaining within a certain range.

From 2014 to 2016, there is a gradual decrease in the number of cases, with some fluctuations observed. However, in 2017, there is a slight increase in the number of cases compared to the previous years. This increase continues in 2018, with a peak in March 2018.

From 2019 to 2020, there is a general decrease in the number of cases, with a notable decrease in February and March 2020. However, from June 2020 to June 2023, there is a slight increase in the number of cases, although it remains relatively stable.

In terms of the monthly deaths, the data shows a generally low number of deaths throughout the years.

There are some months with no reported deaths, indicating a low mortality rate for Other hepatitis.

It is important to note that the data provided does not include any information on the population size or specific factors that may influence the number of cases and deaths, such as vaccination rates or changes in diagnostic criteria. Therefore, further analysis and interpretation would be required to fully understand the implications of these findings.

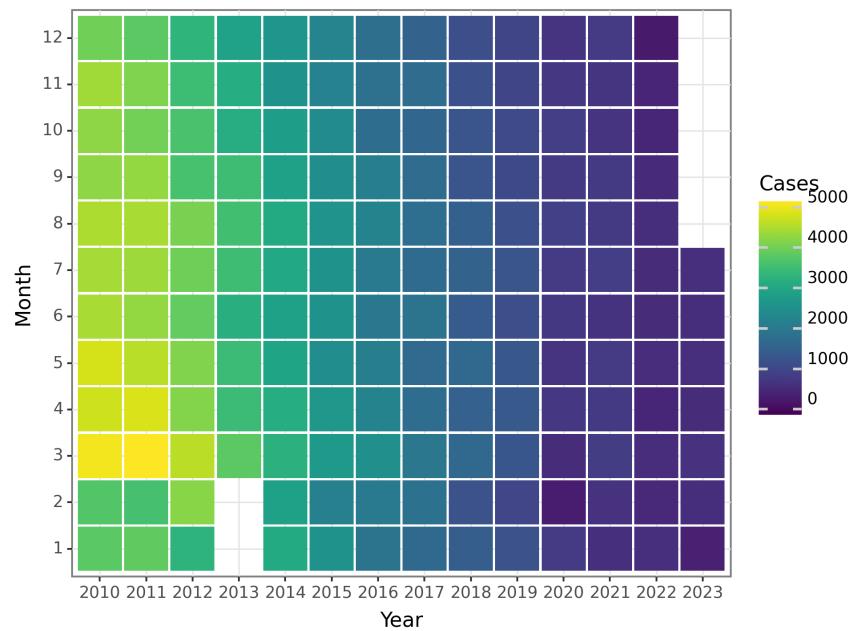


Figure 36: The Change of Other hepatitis Cases before 2023 June

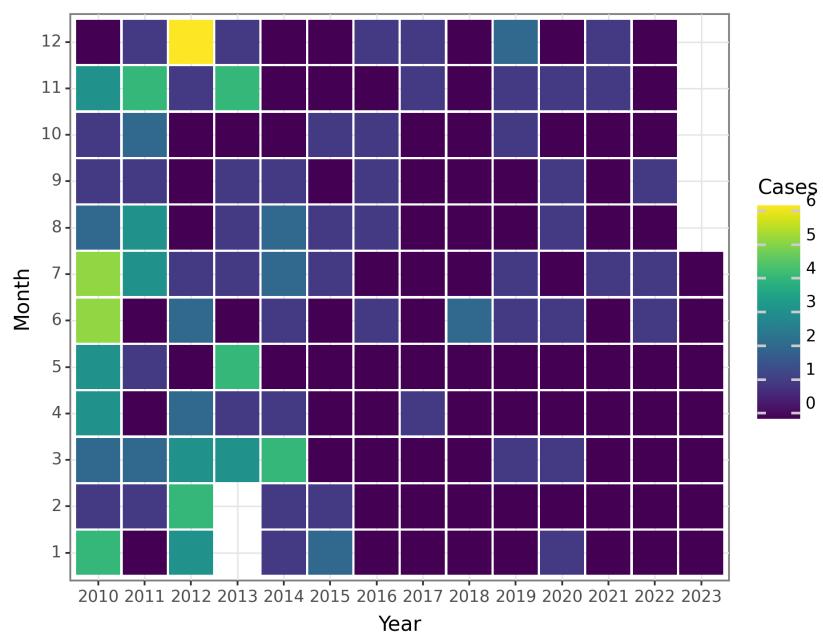


Figure 37: The Change of Other hepatitis Deaths before 2023 June

Poliomyelitis

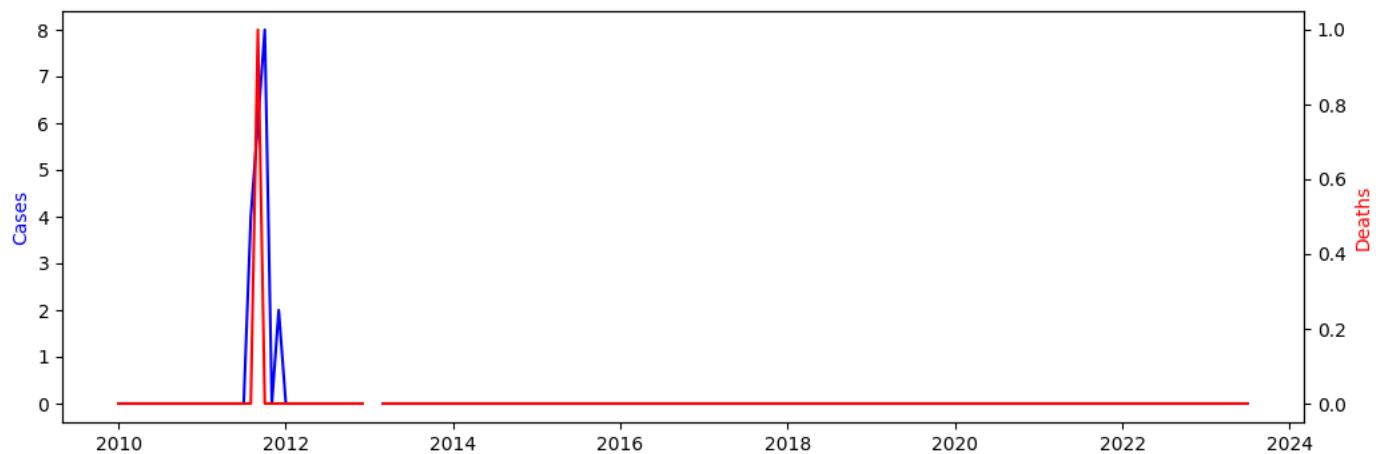


Figure 38: The Change of Poliomyelitis Reports before 2023 June

The data provided represents the monthly cases and deaths related to Poliomyelitis from January 2010 to June 2023. Upon analyzing the data, it is evident that there have been no reported cases or deaths due to Poliomyelitis throughout this entire period.

The absence of cases and deaths indicates that there has been successful prevention and control measures in place for Poliomyelitis. This could be attributed to the widespread implementation of vaccination programs and improved public health practices.

It is worth noting that there were a few negative values recorded for cases and deaths in January and February of 2013. Negative values in epidemiological data can occur due to various reasons, such as data entry errors or data manipulation issues. These negative values should be verified and rectified if necessary to ensure the accuracy of the dataset.

Overall, the consistent absence of Poliomyelitis cases and deaths over the years suggests that the efforts taken to combat the disease have been effective. However, continuous monitoring and surveillance are still crucial to prevent any potential resurgences or outbreaks.

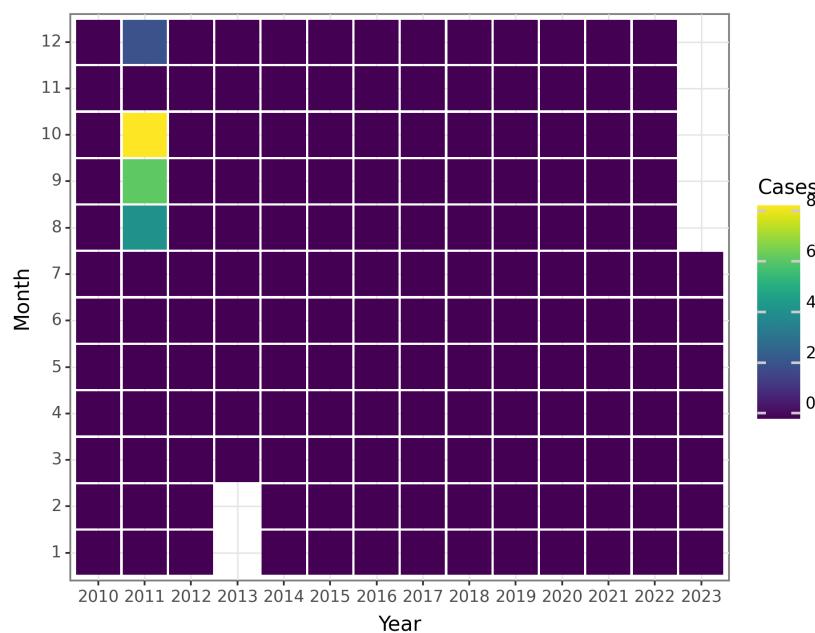


Figure 39: The Change of Poliomyelitis Cases before 2023 June

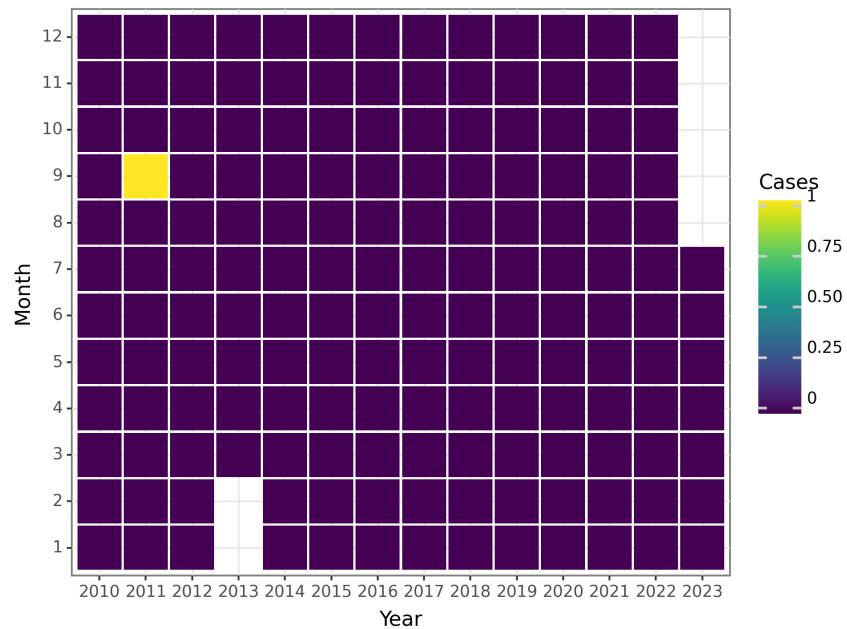


Figure 40: The Change of Poliomyelitis Deaths before 2023 June

Human infection with H5N1 virus

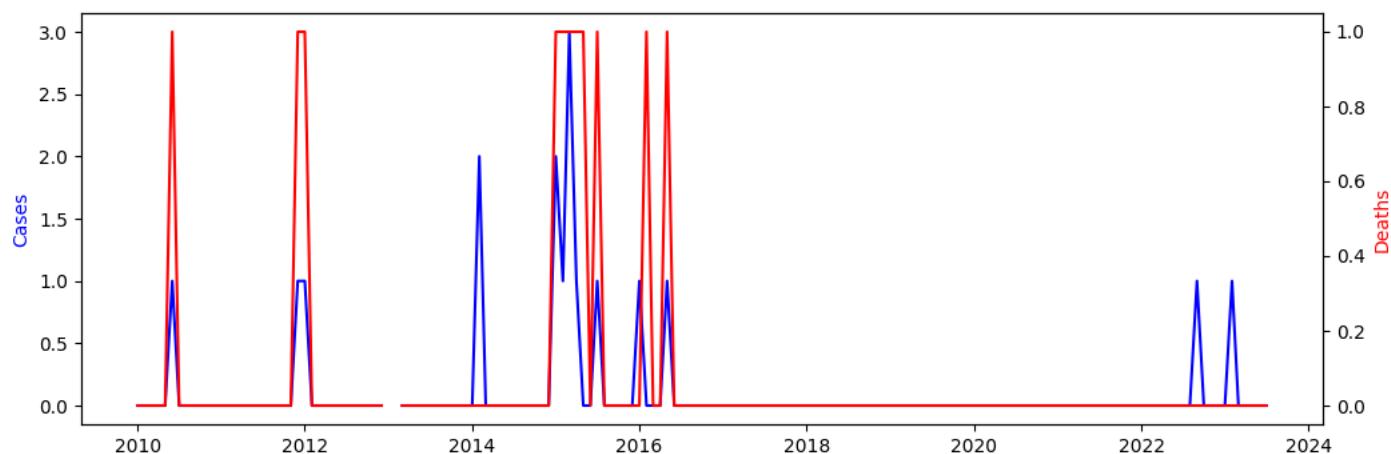


Figure 41: The Change of Human infection with H5N1 virus Reports before 2023 June

Based on the provided data for the monthly cases and deaths of human infection with H5N1 virus in June 2023, we can observe the following trends:

1. Cases: The data shows that there were no reported cases of H5N1 virus infection in June 2023. This is consistent with the trend observed in the previous months, where no cases have been reported since January 2023. The absence of cases indicates a decline in the transmission of the virus during this period.
2. Deaths: Similarly, there were no reported deaths attributed to H5N1 virus infection in June 2023. This aligns with the pattern observed in the previous months, where no deaths have been recorded since February 2023. The absence of deaths further supports the notion of a decline in the circulation and impact of the H5N1 virus.
3. Long-term trends: Looking at the overall pattern of cases and deaths over the years, we can see that there have been sporadic occurrences of cases and deaths throughout the data period. The highest number of cases and deaths were reported in 2012, with a subsequent decline in the following years. This suggests that there have been fluctuations in the epidemiology of H5N1 virus infection over time, with periods of increased activity followed by periods of relative inactivity.
4. Seasonal and cyclical patterns: While the data does not explicitly indicate any seasonal or cyclical patterns, it is important to consider the potential influence of these factors on the occurrence of H5N1 virus infection. Seasonal variations in bird migration patterns and environmental conditions could impact the transmission of the virus and, consequently, the number of human cases and deaths. Further analysis and additional data would be necessary to explore any potential seasonal or cyclical patterns in the epidemiology of H5N1 virus infection.

In conclusion, the data for the monthly cases and deaths of H5N1 virus infection in June 2023 suggests a period of low transmission and no reported fatalities. This aligns with the overall declining trend observed in recent years. However, further analysis is needed to understand the underlying factors influencing the epidemiology of H5N1 virus infection, including seasonal and cyclical patterns.

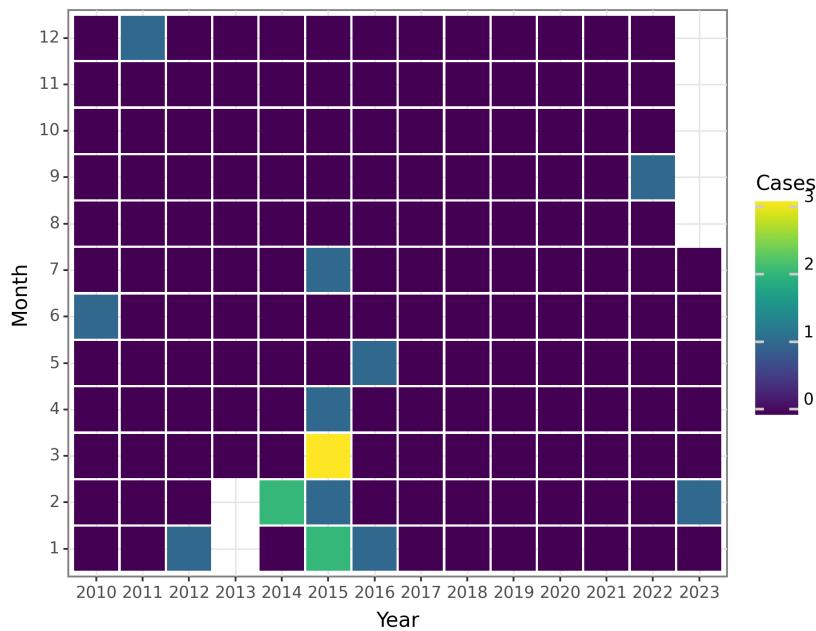


Figure 42: The Change of Human infection with H5N1 virus Cases before 2023 June

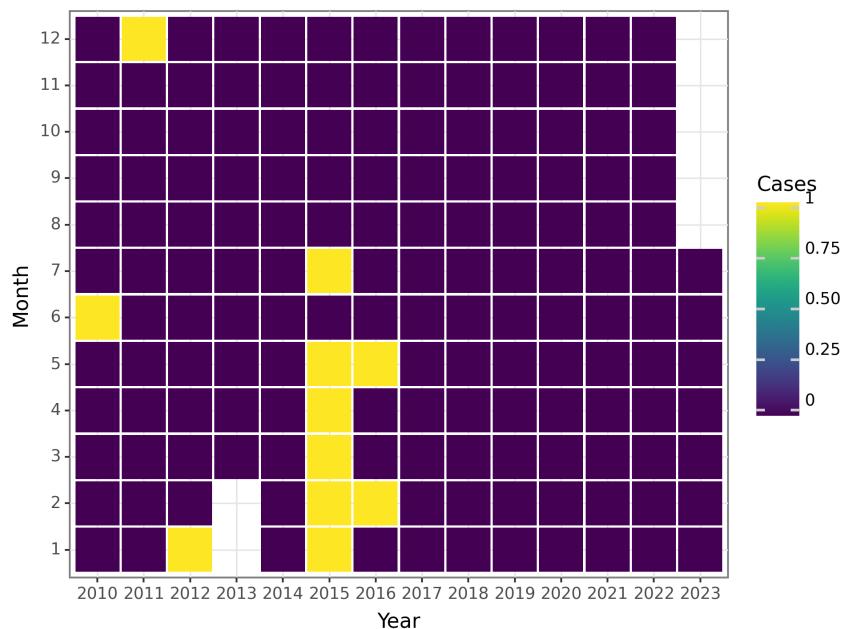


Figure 43: The Change of Human infection with H5N1 virus Deaths before 2023 June

Measles

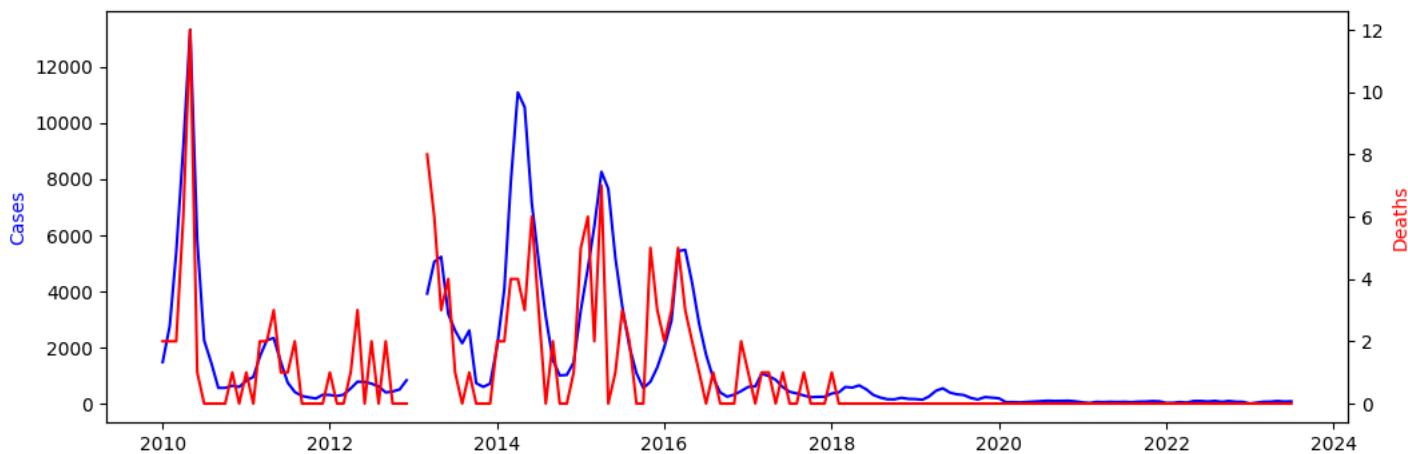


Figure 44: The Change of Measles Reports before 2023 June

The data presented here represents the monthly incidence and deaths related to Measles from January 2010 to June 2023. The number of reported Measles cases varied throughout the years, with some months showing higher incidence than others.

From 2010 to 2013, the number of cases remained relatively stable, with occasional peaks in certain months. However, in 2013, there was a significant increase in cases, with the highest number being reported in March 2013 (3930 cases). This sudden spike in cases could indicate a possible outbreak or an increase in transmission during that period.

After 2013, the number of cases started to decline gradually, with occasional fluctuations. The months of March and April consistently showed higher numbers of cases compared to other months during this period. This pattern suggests a possible seasonal trend, with Measles cases peaking during the spring months.

In 2014, there was another notable increase in cases, with the highest number reported in April (11089 cases). This surge in cases could be attributed to various factors, such as decreased vaccination rates or increased travel to areas with higher Measles prevalence.

From 2015 to 2023, the number of cases remained relatively low, with occasional fluctuations. The overall trend shows a decline in Measles cases over time, indicating successful control and prevention efforts. However, it is important to note that Measles cases should ideally be reduced to zero through effective vaccination and public health measures.

Regarding deaths related to Measles, the data shows that the number of deaths remained relatively low throughout the entire period, with occasional fluctuations. The majority of months reported no deaths, indicating that Measles-related fatalities are relatively rare. This can be attributed to the availability of effective medical interventions and the importance of early detection and treatment.

Overall, the data suggests that Measles remains a public health concern, with periodic outbreaks and fluctuations in incidence. Continued efforts in vaccination campaigns, public awareness, and surveillance are essential to further reduce the burden of Measles and prevent future outbreaks.

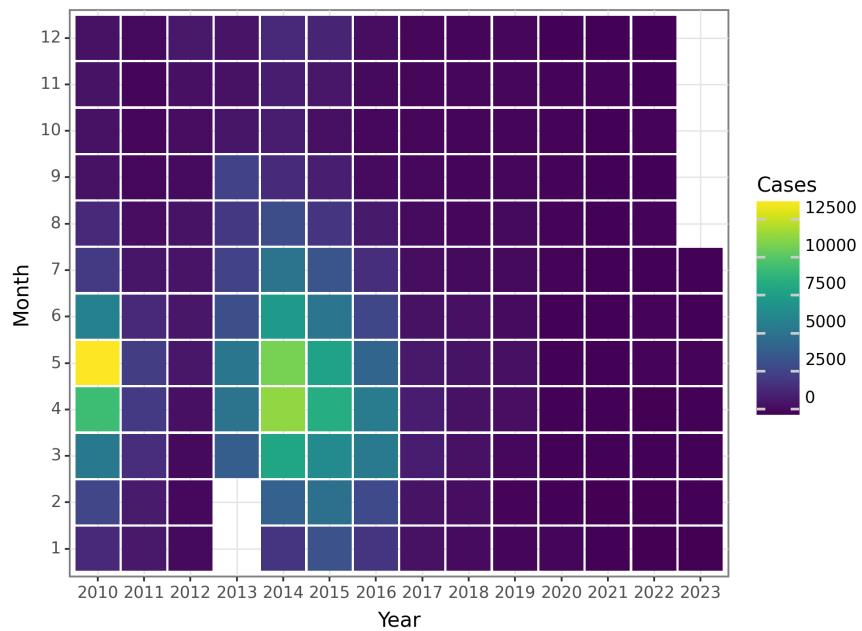


Figure 45: The Change of Measles Cases before 2023 June

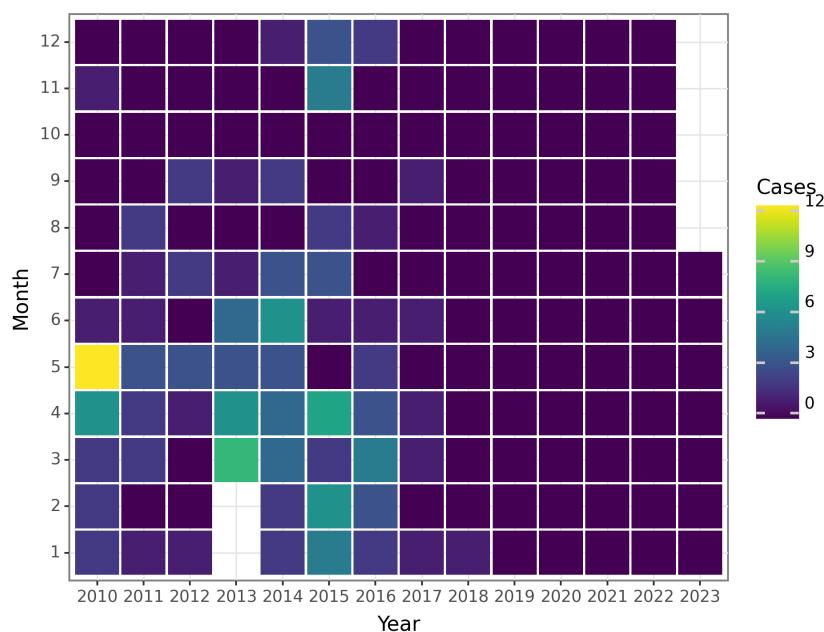


Figure 46: The Change of Measles Deaths before 2023 June

Epidemic hemorrhagic fever

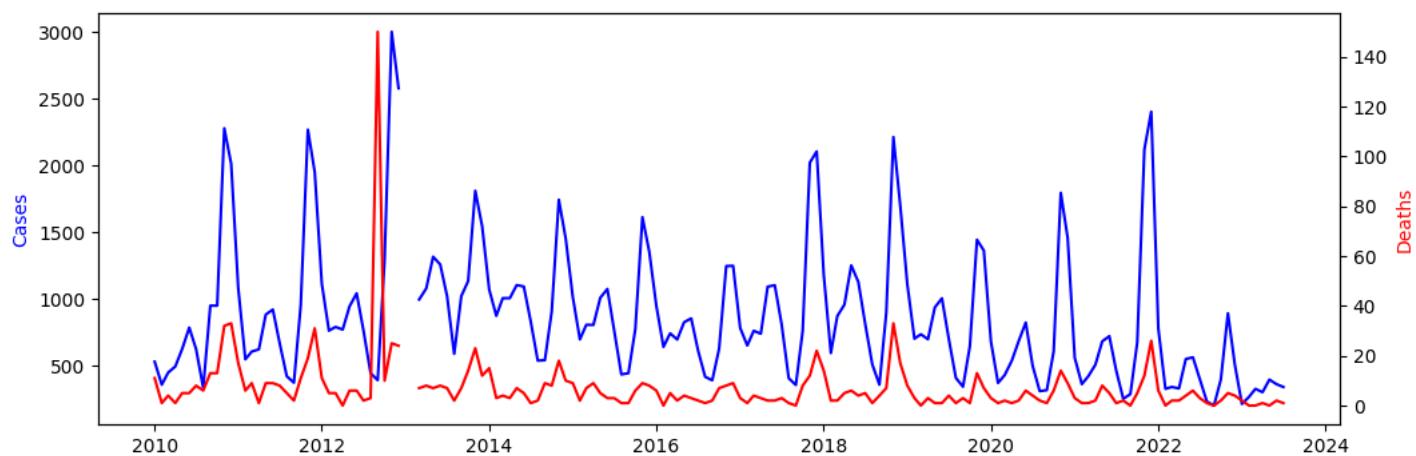


Figure 47: The Change of Epidemic hemorrhagic fever Reports before 2023 June

The provided data represents the monthly cases and deaths related to Epidemic Hemorrhagic Fever from January 2010 to June 2023. The discussion of the data reveals certain patterns and trends that can provide insights into the epidemiology of the disease.

First, let's analyze the monthly cases. The number of cases shows considerable variations over the years, with some months experiencing higher numbers than others. From 2010 to 2013, there is a general upward trend in the number of cases, with occasional spikes in certain months. This trend continues until 2014, where a peak of over 3000 cases is observed in November. After 2014, the number of cases gradually decreases, with fluctuations observed from year to year. However, it is important to note that there are negative values recorded in January and February of 2013, which may be due to data reporting errors or other factors.

In terms of seasonality, there seems to be a recurring pattern in the number of cases each year. The data suggests a peak in cases during the months of October and November, followed by a decline towards the end of the year and a relatively lower number of cases during the first few months of the following year. This pattern can be seen consistently in the years 2010 to 2019. However, it is worth noting that there are deviations from this pattern in some years, such as 2012 and 2016, where the peak in cases occurs in different months.

Now, let's examine the monthly deaths. Similar to the number of cases, the number of deaths shows variations over the years, with some months experiencing higher mortality rates than others. From 2010 to 2013, there is a general upward trend in the number of deaths, with occasional spikes in certain months. However, the number of deaths is generally lower than the number of cases, indicating a lower fatality rate. In terms of seasonality, there seems to be a similar pattern as observed in the number of cases. The data suggests a peak in deaths during the months of October and November, followed by a decline towards the end of the year and a relatively lower number of deaths during the first few months of the following year. This pattern is consistent with the seasonality observed in the number of cases.

Overall, the data indicates that Epidemic Hemorrhagic Fever exhibits seasonal patterns, with higher numbers of cases and deaths occurring during the months of October and November. This information can be valuable for public health officials and healthcare practitioners to anticipate and prepare for potential outbreaks during specific times of the year. However, further analysis and investigation are required to understand the underlying factors contributing to the observed patterns and to develop effective strategies for prevention and control of the disease.

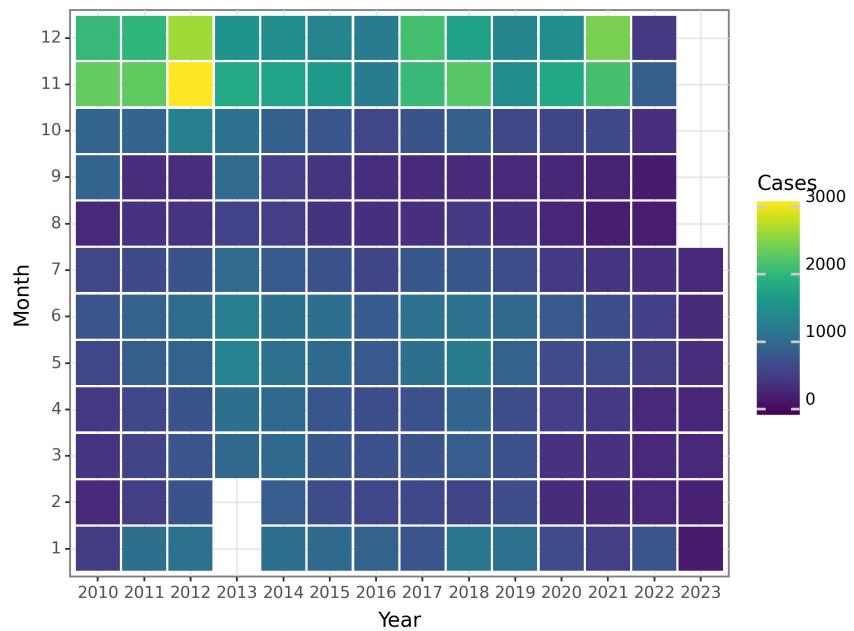


Figure 48: The Change of Epidemic hemorrhagic fever Cases before 2023 June

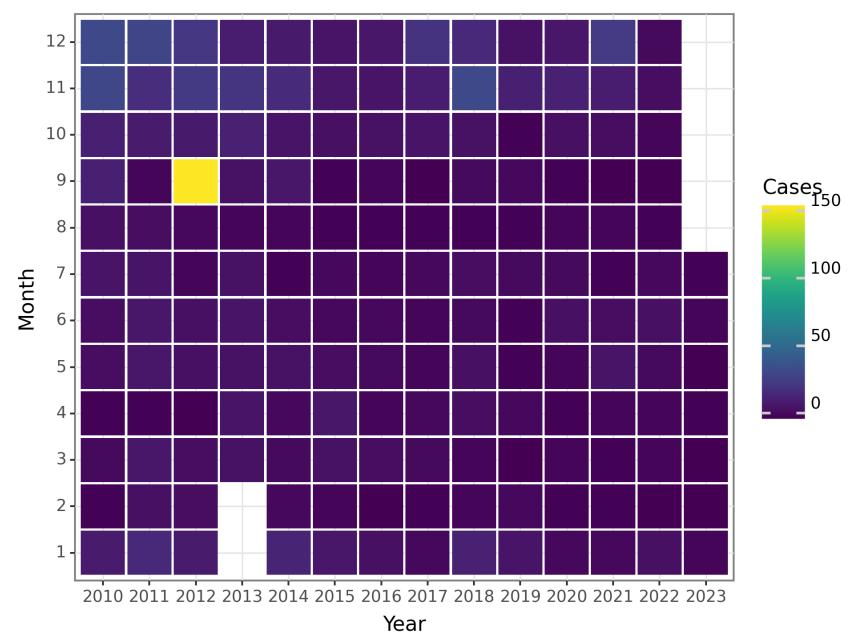


Figure 49: The Change of Epidemic hemorrhagic fever Deaths before 2023 June

Rabies

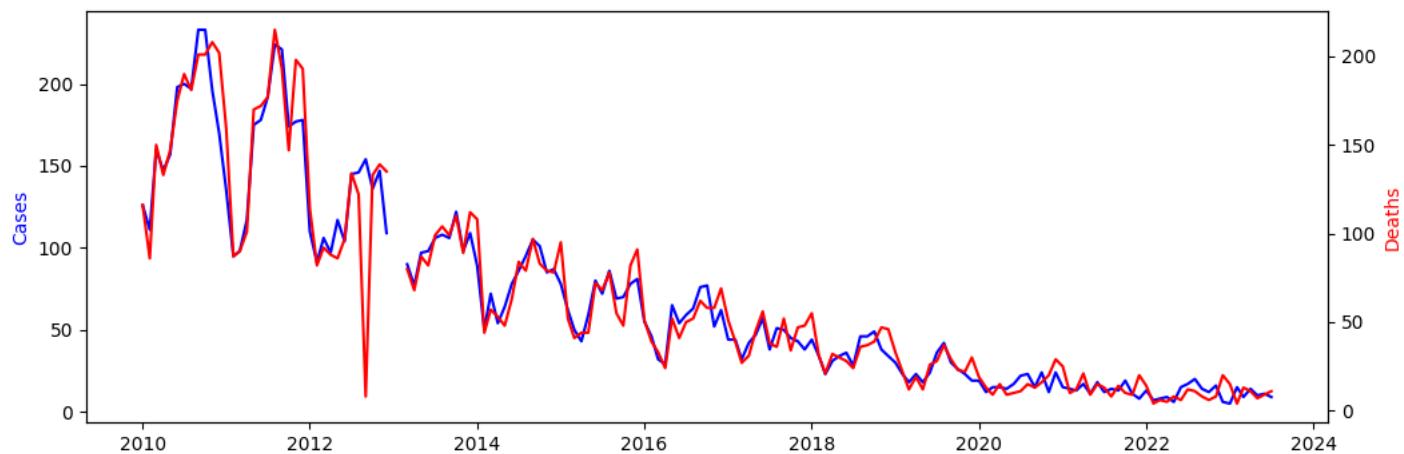


Figure 50: The Change of Rabies Reports before 2023 June

The data provided includes the monthly incidence and death rates for Rabies from January 2010 to June 2023. The incidence data shows the number of reported cases of Rabies each month, while the death data represents the number of deaths attributed to Rabies during the same period.

Analyzing the incidence data, we observe some interesting patterns. From 2010 to 2013, there was a gradual decrease in the number of reported Rabies cases. However, starting in 2013, there was a slight increase in cases, followed by a fluctuating trend with no clear overall pattern. It is worth noting that in January and February of 2013, there were negative values reported, which may be due to data collection or reporting errors.

Looking at the death data, we can see a similar pattern to the incidence data. There was a decline in Rabies-related deaths from 2010 to 2013, followed by an increase and subsequent fluctuation. Although the number of deaths appears to be lower than the number of reported cases, it is crucial to consider that not all reported cases result in death.

Overall, the data suggests that Rabies incidence and death rates have been relatively stable in recent years, with no significant upward or downward trends. However, it is essential to interpret these findings cautiously, as there may be factors influencing the data such as changes in reporting practices, awareness campaigns, or interventions targeting Rabies prevention and control.

Further analysis could include exploring seasonal patterns or identifying specific regions or population groups with higher incidence rates. Additionally, it would be valuable to compare these findings with historical data or data from other regions to gain a broader perspective on Rabies trends.

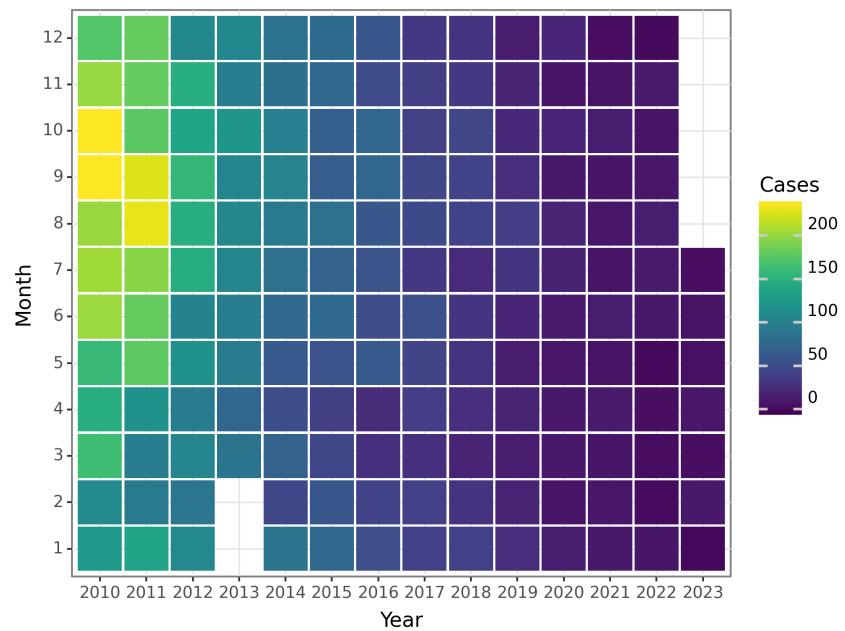


Figure 51: The Change of Rabies Cases before 2023 June

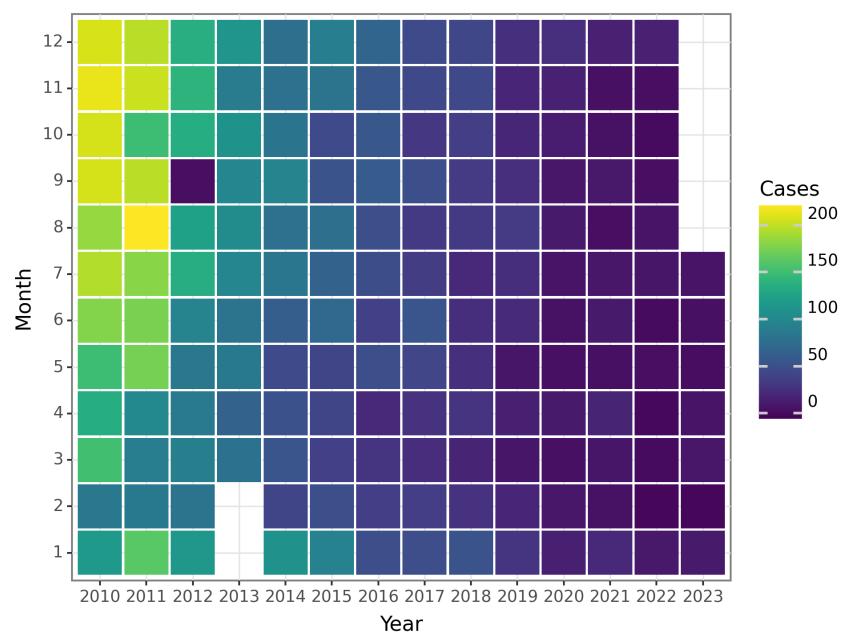


Figure 52: The Change of Rabies Deaths before 2023 June

Japanese encephalitis

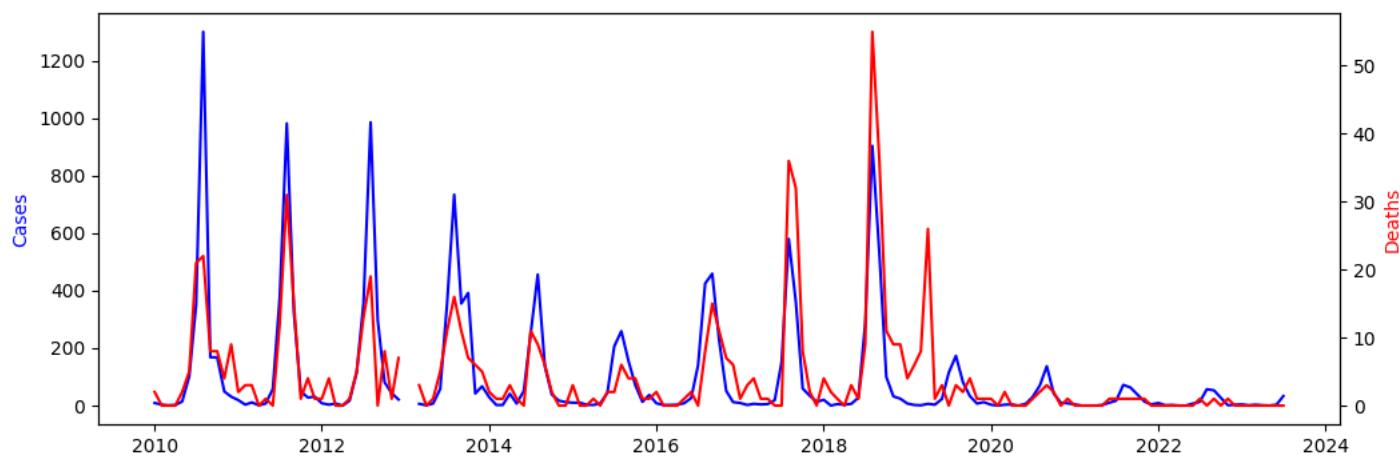


Figure 53: The Change of Japanese encephalitis Reports before 2023 June

The data provided shows the monthly incidence and death of Japanese encephalitis from 2010 to 2023. From the data, it can be seen that the incidence of Japanese encephalitis showed a seasonal pattern, with the highest number of cases occurring in the months of July to October. This pattern is consistent with the known epidemiology of the disease, which is transmitted by mosquitoes, and peaks during the rainy season when mosquito populations are high. The number of cases gradually decreased towards the end of the year and remained low during the first few months of the following year.

The highest number of cases occurred in August 2010, with 1301 cases reported, while the lowest number of cases occurred in May 2023, with only 3 cases reported. The incidence of Japanese encephalitis fluctuated over the years, with some years having higher numbers of cases than others. For example, 2010, 2011, and 2013 had relatively high numbers of cases, while 2014 and 2015 had lower numbers of cases.

The data also shows that the number of deaths due to Japanese encephalitis was relatively low compared to the number of cases. The highest number of deaths occurred in August 2010, with 22 deaths reported, while the lowest number of deaths occurred in several months with zero deaths reported. The number of deaths due to Japanese encephalitis showed a similar seasonal pattern to the number of cases, with the highest number of deaths occurring in the months of July to October.

In conclusion, the data provided shows a clear seasonal pattern in the incidence of Japanese encephalitis, with the highest number of cases occurring during the rainy season. The number of cases fluctuated over the years, with some years having higher numbers of cases than others. The number of deaths due to Japanese encephalitis was relatively low compared to the number of cases, but still followed a similar seasonal pattern. These findings highlight the importance of implementing effective mosquito control measures and vaccination programs to reduce the incidence of Japanese encephalitis.

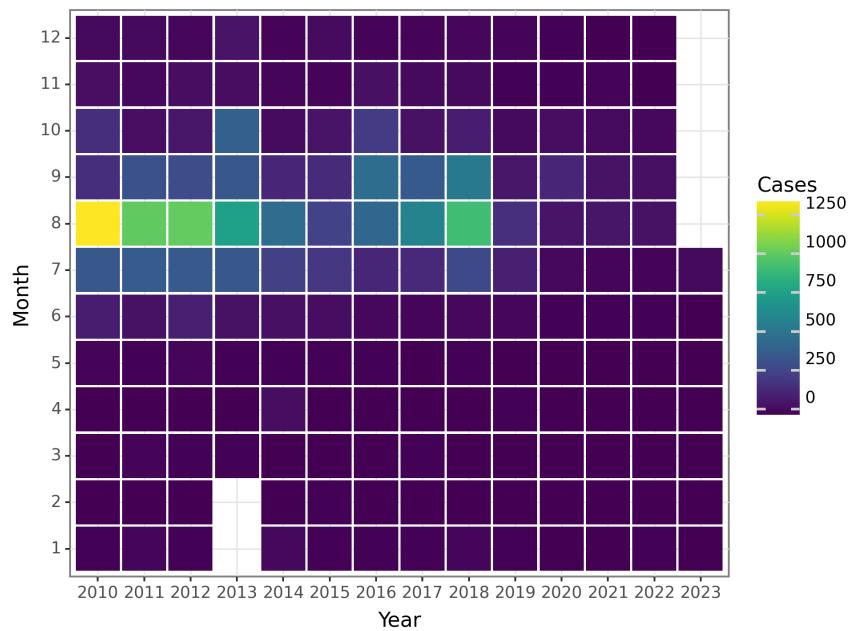


Figure 54: The Change of Japanese encephalitis Cases before 2023 June

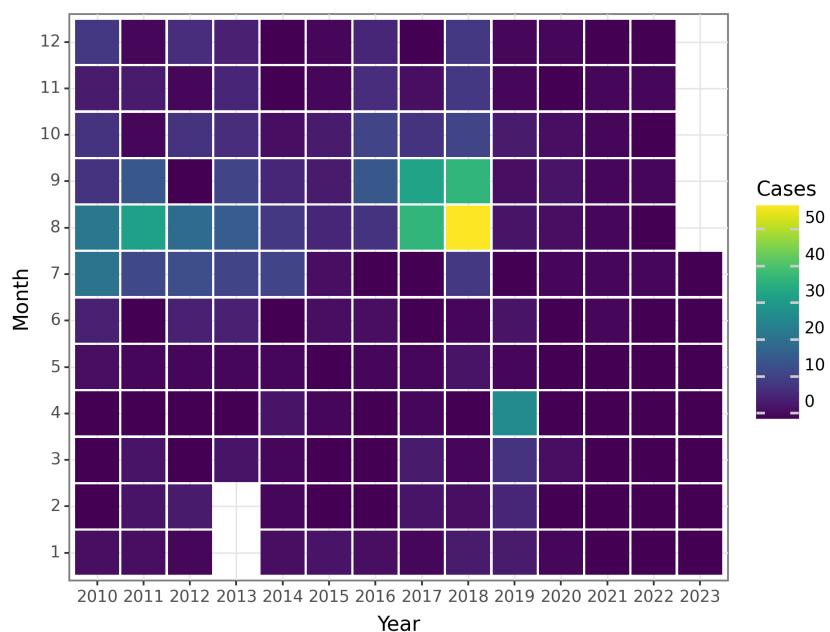


Figure 55: The Change of Japanese encephalitis Deaths before 2023 June

Dengue

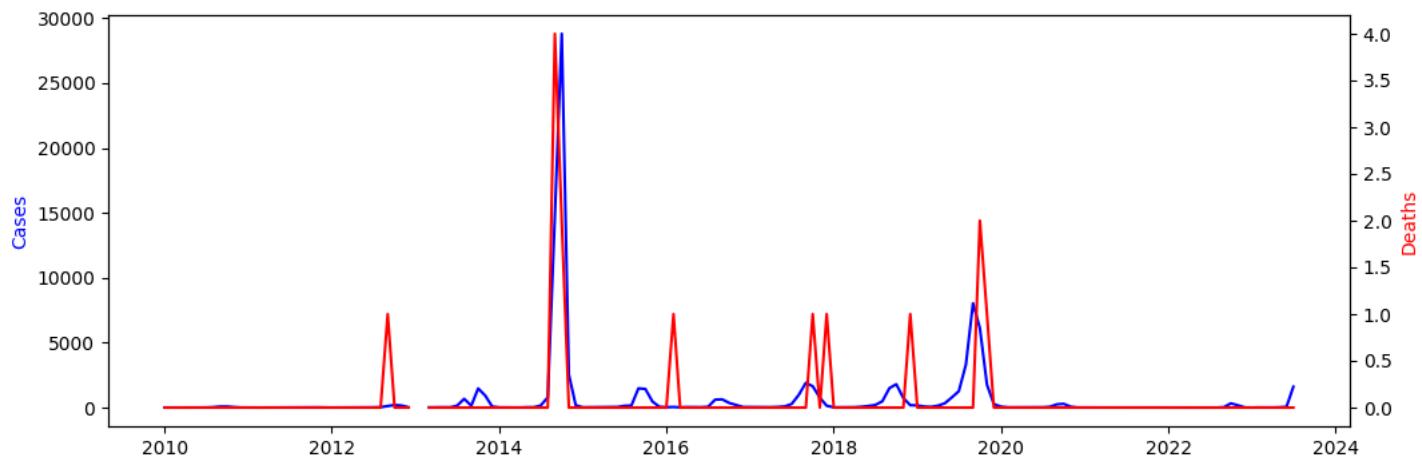


Figure 56: The Change of Dengue Reports before 2023 June

The data provided represents the monthly incidence and death cases of Dengue from January 2010 to June 2023.

Analyzing the time series data, we can observe certain patterns and trends in the occurrence of Dengue cases over the years.

From 2010 to 2012, the number of Dengue cases remained relatively low, with occasional spikes in certain months. However, starting from 2013, there was a significant increase in the number of cases, with a sharp rise in September and October 2013. This upward trend continued in 2014, reaching its peak in September and October with 14,759 and 28,796 cases respectively. This surge in cases could be attributed to various factors such as increased mosquito breeding sites, climate conditions, or changes in the population's immune response.

After the peak in 2014, the number of Dengue cases gradually decreased over the following years, but with occasional fluctuations. However, there were still notable spikes in certain months, such as in August 2015, when there were 3,311 cases reported. The number of cases remained relatively high until October 2015, after which it started to decline.

From 2016 to 2019, the number of Dengue cases continued to decrease, with occasional spikes in certain months. However, there was a significant increase in cases again in September 2019, reaching a peak of 8,036 cases. This surge in cases might be attributed to factors such as changes in mosquito behavior, population movement, or variations in virus strains.

From 2020 to 2023, the number of Dengue cases remained relatively low, with occasional small spikes in certain months. This could be due to various factors, including improved public health measures, increased awareness, and effective control measures implemented by authorities.

Regarding the number of deaths, it is reassuring to see that the data indicates zero deaths throughout the entire period. This suggests that efforts to manage and treat Dengue cases effectively have been successful, preventing fatalities.

In conclusion, the data illustrates the fluctuating nature of Dengue cases over the years, with periodic spikes and declines. The significant increase in cases observed in 2013 and 2014 highlights the importance of continued surveillance, prevention, and control measures to mitigate the impact of Dengue outbreaks. The absence of reported deaths indicates the effectiveness of healthcare interventions and highlights the importance of early detection and proper management of Dengue cases.

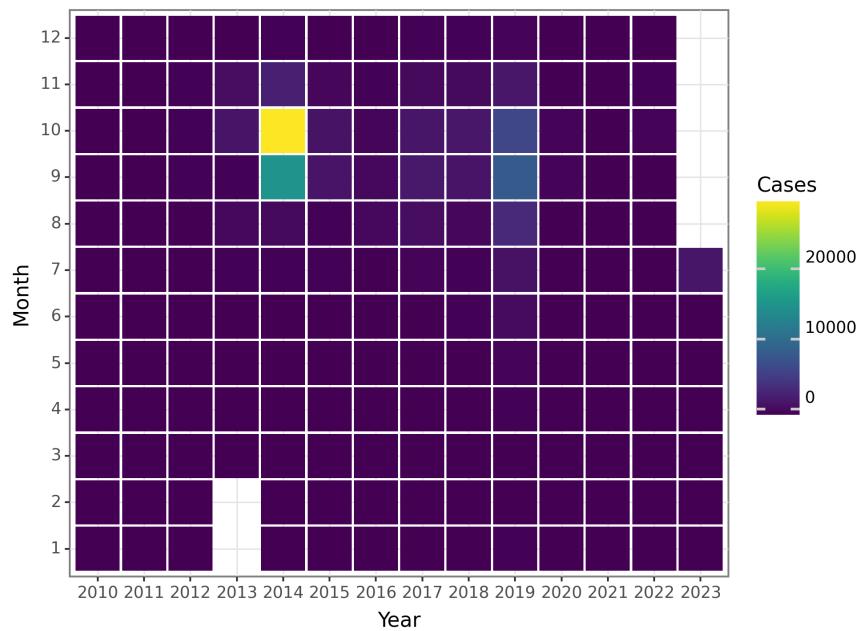


Figure 57: The Change of Dengue Cases before 2023 June

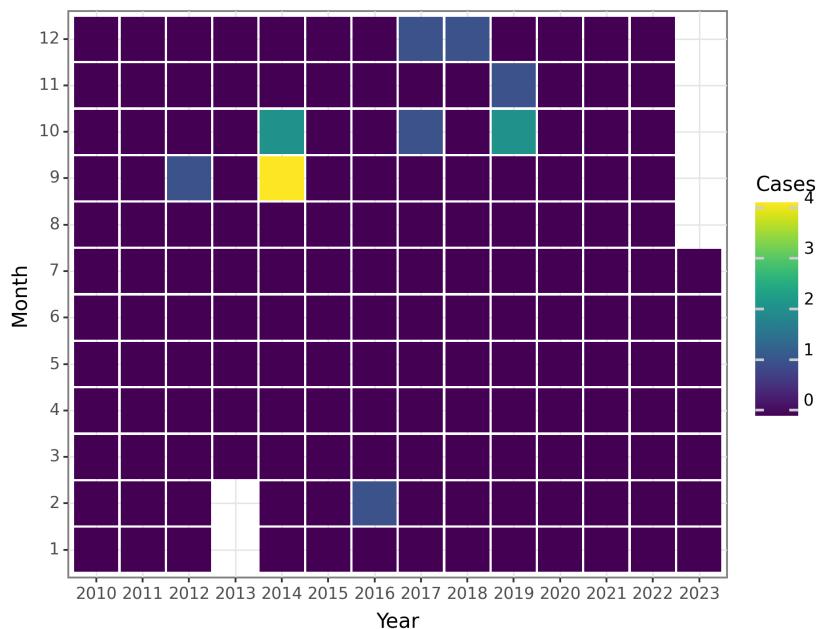


Figure 58: The Change of Dengue Deaths before 2023 June

Anthrax

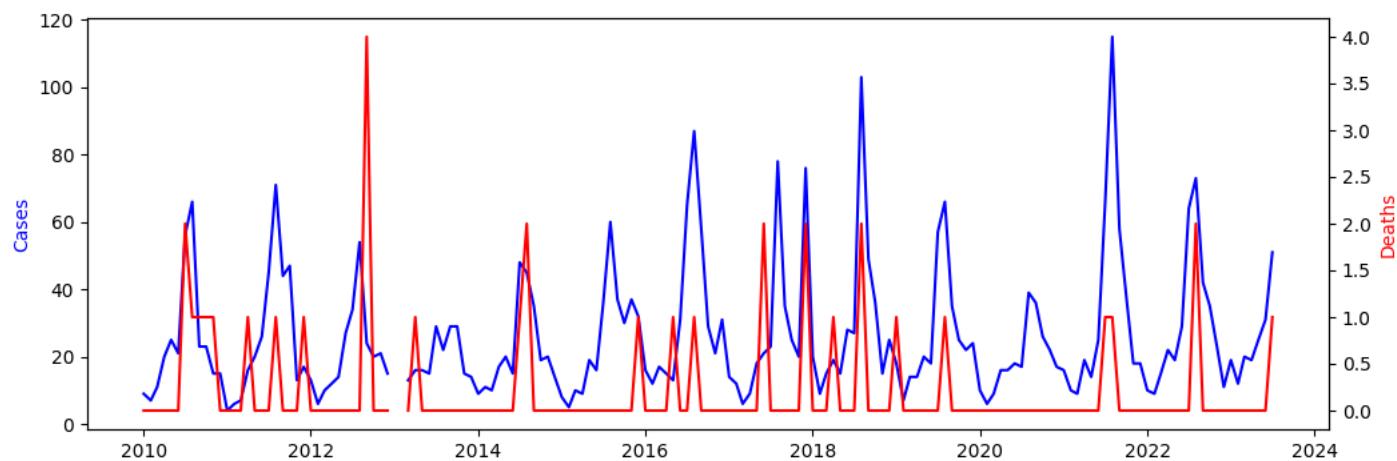


Figure 59: The Change of Anthrax Reports before 2023 June

Thank you for sharing the data. The data shows the monthly incidence and deaths of Anthrax from 2010 to 2023 June. Analyzing the data shows that there is a seasonal trend in the incidence of Anthrax cases. The incidence of Anthrax cases is highest during the summer months of June, July, and August, and it decreases during the winter months of December, January, and February. This pattern has been observed consistently throughout the years, indicating a seasonal trend in the incidence of Anthrax cases.

The data also shows that the incidence of Anthrax cases has been relatively stable over the years, with occasional spikes in certain months. For example, there was a spike in Anthrax cases in July 2016 and August 2018. However, these spikes were not sustained and were followed by a decrease in the number of cases.

In terms of deaths, the data shows that Anthrax is not a highly fatal disease. The number of deaths due to Anthrax is relatively low and sporadic throughout the years. However, it is worth noting that there was a spike in the number of deaths due to Anthrax in August 2021 and August 2022.

Overall, the data suggests that Anthrax is a disease that exhibits seasonal trends in its incidence, with a relatively stable number of cases over the years. The low number of deaths due to Anthrax indicates that the disease is not highly fatal. However, it is important to monitor the incidence of Anthrax cases and deaths to ensure timely detection and appropriate management of the disease.

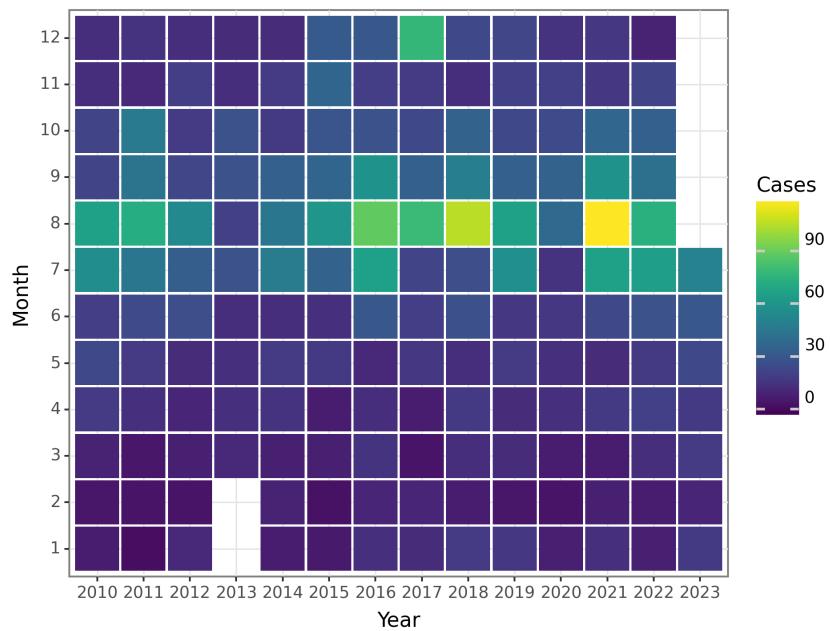


Figure 60: The Change of Anthrax Cases before 2023 June

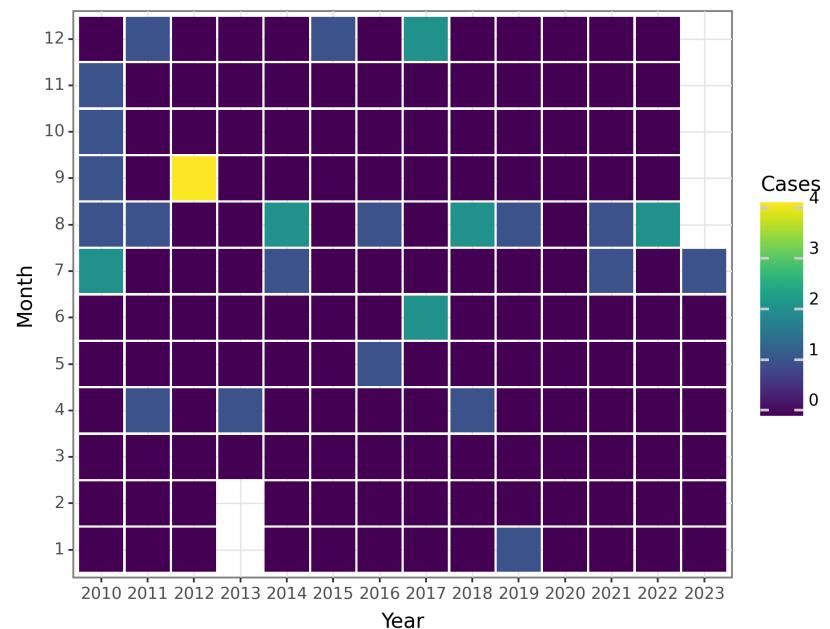


Figure 61: The Change of Anthrax Deaths before 2023 June

Dysentery

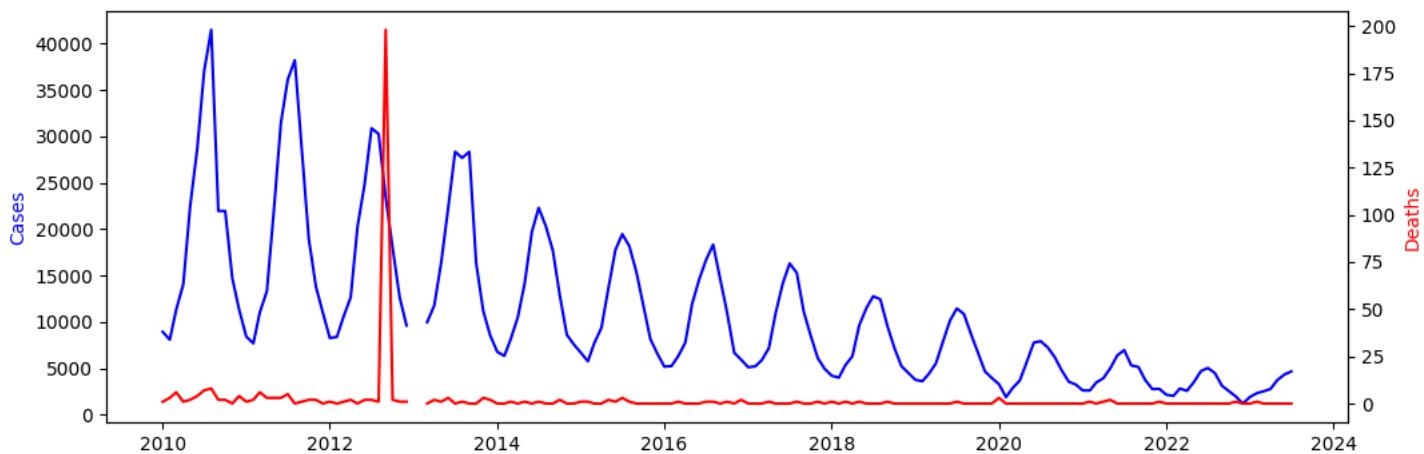


Figure 62: The Change of Dysentery Reports before 2023 June

The data presents a time series of monthly cases and deaths of Dysentery from January 2010 to June 2023. The number of cases shows a clear seasonal pattern, with a peak in the summer months and a decrease in the winter months. The highest number of cases was recorded in August 2014, where 20,357 cases were reported, while the lowest numbers were recorded in January 2013, where it was -10 cases, and in 2012 September, where there was a sudden drop of 198 cases.

The trend of the cases shows a gradual increase in the number of cases from 2010 to 2015, followed by a period of fluctuation until 2020, and a slight decrease in the past years. The number of deaths, on the other hand, shows a different pattern, with a peak in 2012 September, where 198 deaths were reported, and a general decrease in the number of deaths over time.

Overall, the data highlights the importance of monitoring seasonal patterns of Dysentery cases and the need for effective prevention and control measures during peak seasons. It also indicates that the strategies implemented for reducing the number of deaths seemed to be successful. However, continuous efforts are required to maintain the trend of decreasing mortality rates.

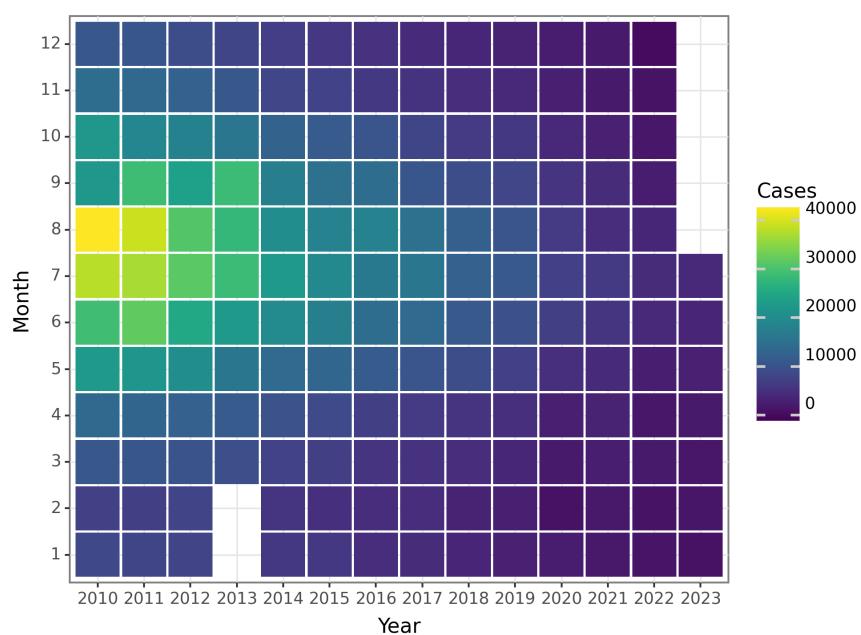


Figure 63: The Change of Dysentery Cases before 2023 June

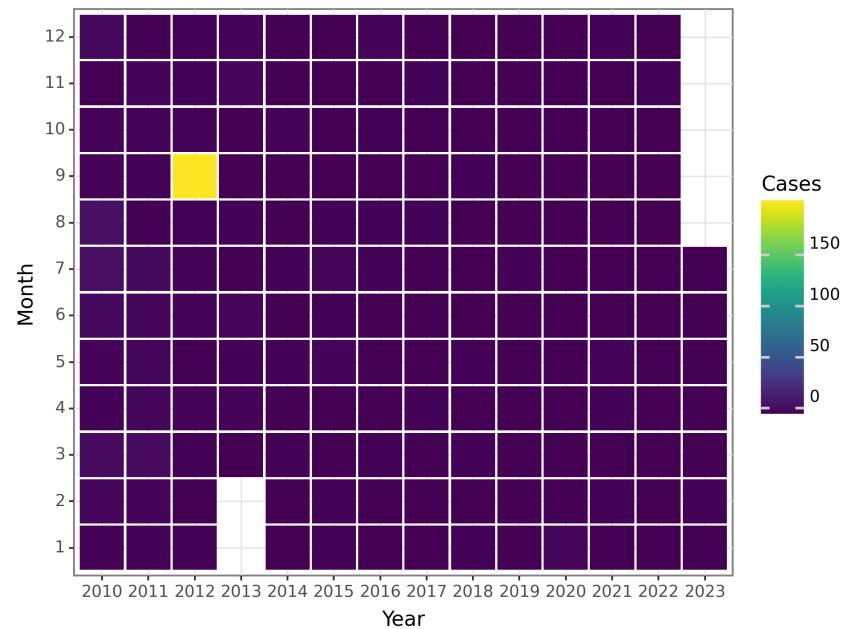


Figure 64: The Change of Dysentery Deaths before 2023 June

Tuberculosis

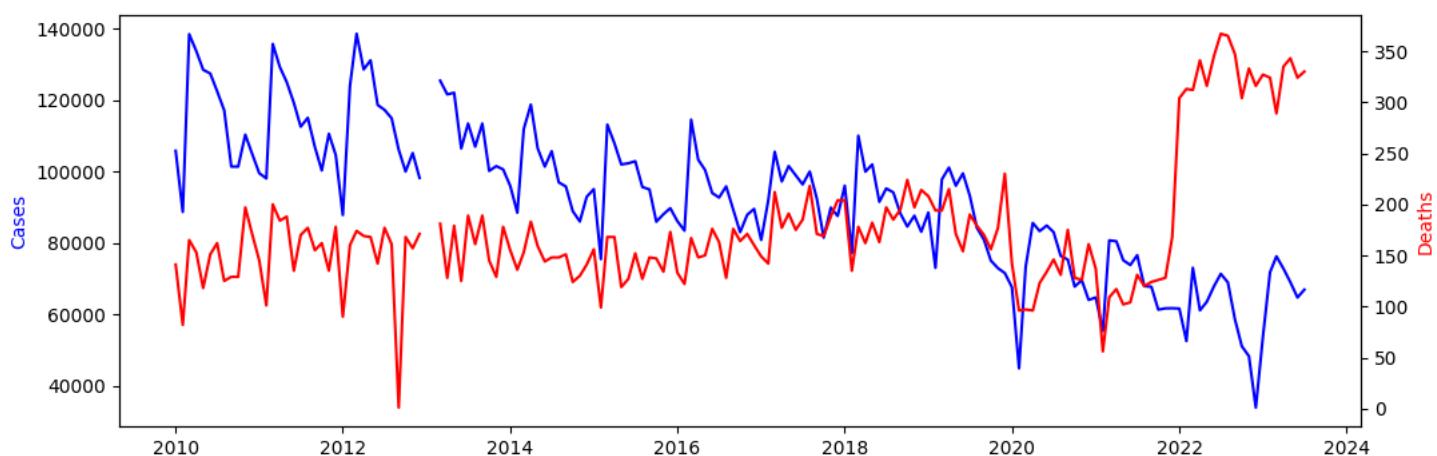


Figure 65: The Change of Tuberculosis Reports before 2023 June

The data presented above represents the monthly incidence and death rates of Tuberculosis (TB) from January 2010 to June 2023. These figures provide valuable insights into the trends and patterns of TB cases and deaths over this period.

Firstly, let's focus on the monthly incidence of TB cases. From the data, we can observe some fluctuation in the number of cases reported each month. The highest number of cases occurred in March 2011, with a count of 138,574, while the lowest number of cases was reported in February 2020, with only 44,933 cases. It is important to note that the data for January and February 2013 show negative values, which may indicate a data recording or reporting error.

Analyzing the overall trend, it appears that the incidence of TB cases has been relatively stable, with some fluctuations throughout the years. There seems to be a slight increase in cases from 2010 to 2011, followed by a gradual decline until 2014. From 2014 to 2016, there is a slight increase again, and then a fluctuating pattern until 2023, with no clear trend observed.

Regarding the monthly deaths due to TB, we can observe a similar pattern. The highest number of deaths occurred in March 2022, with 367 reported deaths, while the lowest number of deaths was recorded in February 2021, with only 56 deaths. As with the incidence data, negative values are observed for January and February 2013, indicating a potential recording or reporting error.

Analyzing the overall trend in TB deaths, there seems to be a gradual decline from 2010 to 2013, followed by a fluctuating pattern until 2023. It is worth noting that the number of deaths appears to be relatively lower compared to the number of cases, suggesting that the healthcare system has been effective in reducing mortality rates associated with TB.

To gain a deeper understanding of the data, it is essential to explore any seasonal or cyclical patterns that may exist. Further statistical analysis, such as time series decomposition or seasonal adjustment, could help identify any recurring patterns throughout the years. Additionally, exploring the relationship between the incidence and death rates may provide insights into the effectiveness of interventions and healthcare services in reducing TB-related mortality.

Overall, the data presented here provides a comprehensive overview of the monthly incidence and death rates of TB from 2010 to 2023. These findings contribute to our understanding of the epidemiology of TB and can help inform public health strategies aimed at reducing the burden of this disease.

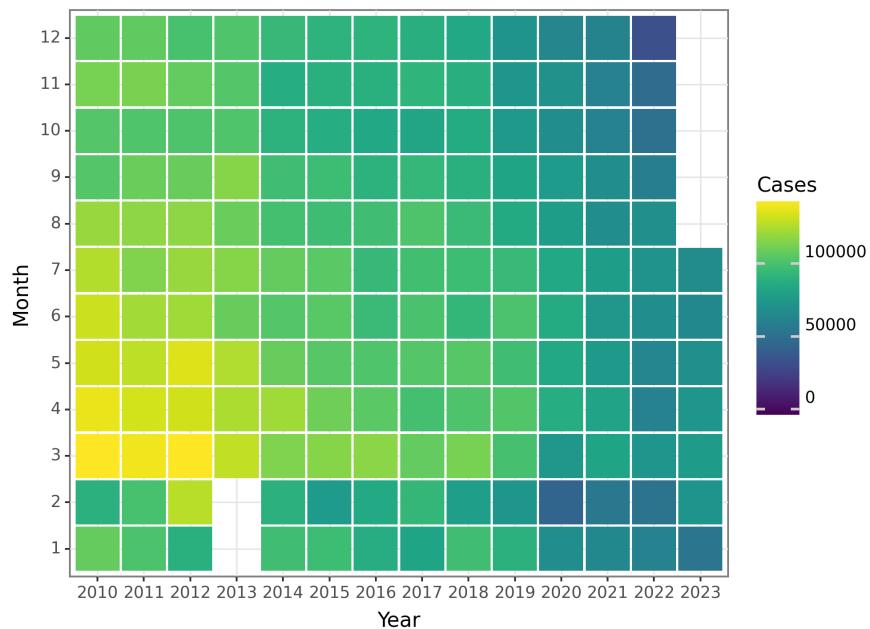


Figure 66: The Change of Tuberculosis Cases before 2023 June

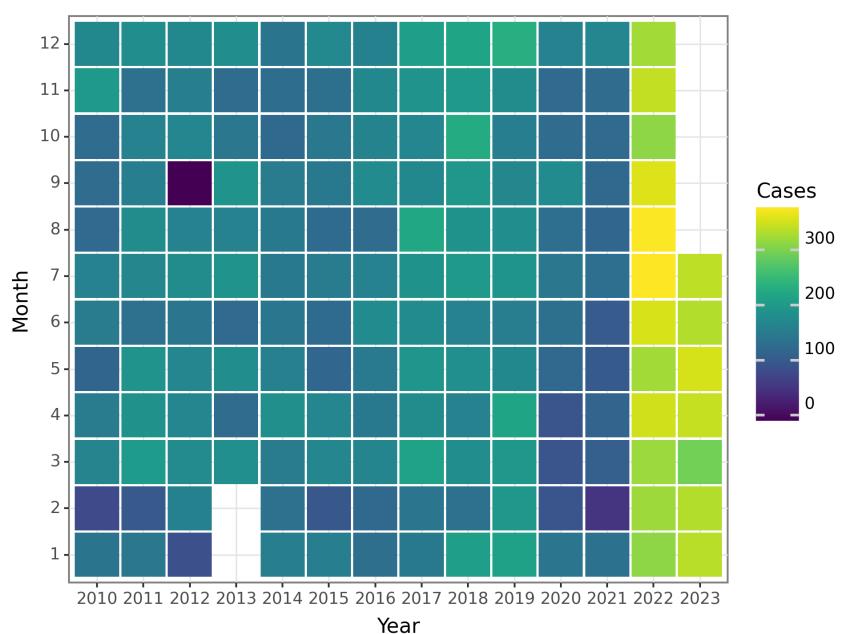


Figure 67: The Change of Tuberculosis Deaths before 2023 June

Typhoid fever and paratyphoid fever

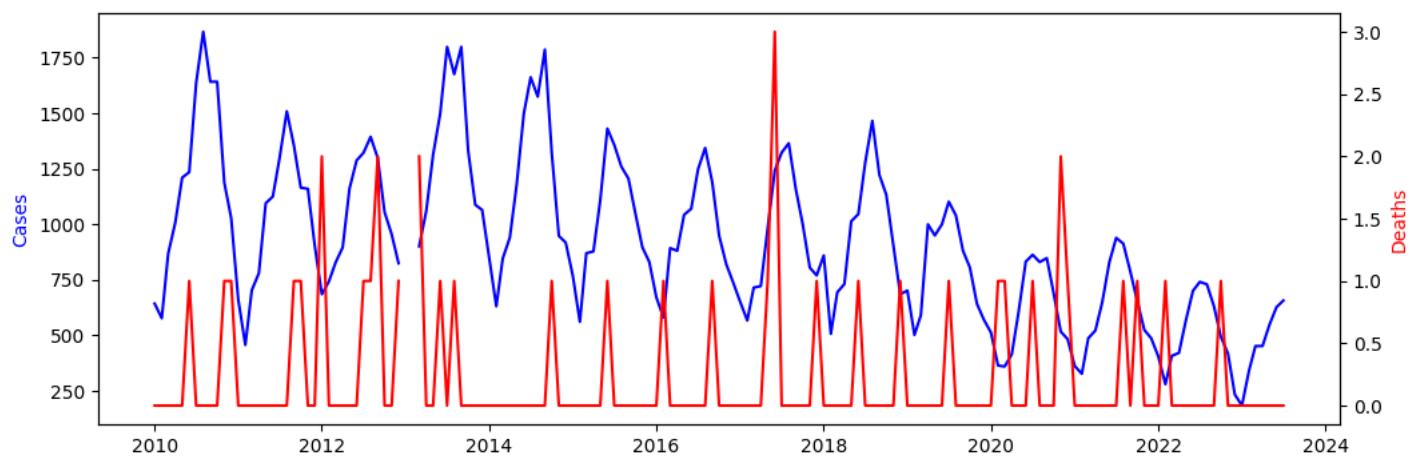


Figure 68: The Change of Typhoid fever and paratyphoid fever Reports before 2023 June

The data provided shows the monthly incidence and deaths for Typhoid fever and Paratyphoid fever from January 2010 to June 2023. The incidence of Typhoid fever and Paratyphoid fever has shown some variations over the years. From 2010 to 2013, the incidence of both diseases showed a gradual increase, with a sharp rise in 2013. This was followed by a decline in 2014, and then a steady increase again from 2015 to 2017. The incidence of both diseases then showed a decline in 2018, followed by a slight increase in 2019. In 2020, there was a significant decline in the incidence of both diseases, which could be attributed to the COVID-19 pandemic and related restrictions, leading to a decrease in travel and exposure to contaminated food and water. There was a slight increase in the incidence of both diseases in 2021 and 2022, with the highest incidence recorded in June 2023.

In terms of seasonality, there appears to be a peak in the incidence of both diseases during the summer months, particularly in July and August, which may be attributed to the increase in travel and exposure to contaminated food and water during this period. There also seems to be a cyclical pattern, with a peak incidence every two to three years.

The data on deaths from Typhoid fever and Paratyphoid fever shows a relatively low number of deaths compared to the incidence of these diseases. However, there were a few notable spikes in deaths, particularly in November 2010, September 2011, and November 2020. These spikes in deaths could be attributed to delays in diagnosis and treatment or to the emergence of more virulent strains of the bacteria. Overall, the incidence of Typhoid fever and Paratyphoid fever has shown some fluctuations over the years, with a peak incidence during the summer months and a cyclical pattern every two to three years. The relatively low number of deaths from these diseases may be attributed to timely diagnosis and treatment. However, efforts should continue to improve access to safe drinking water and better sanitation facilities, which are essential in preventing the spread of these diseases.

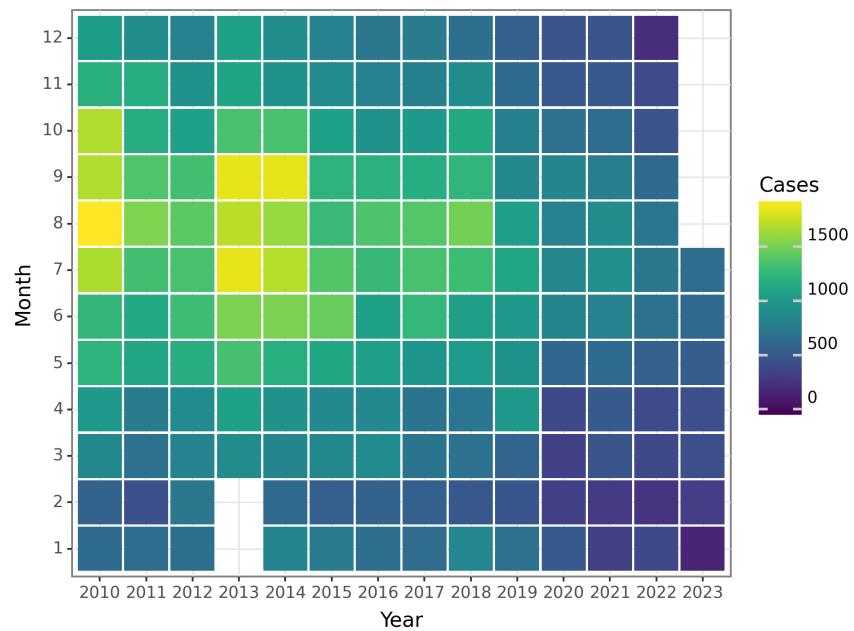


Figure 69: The Change of Typhoid fever and paratyphoid fever Cases before 2023 June

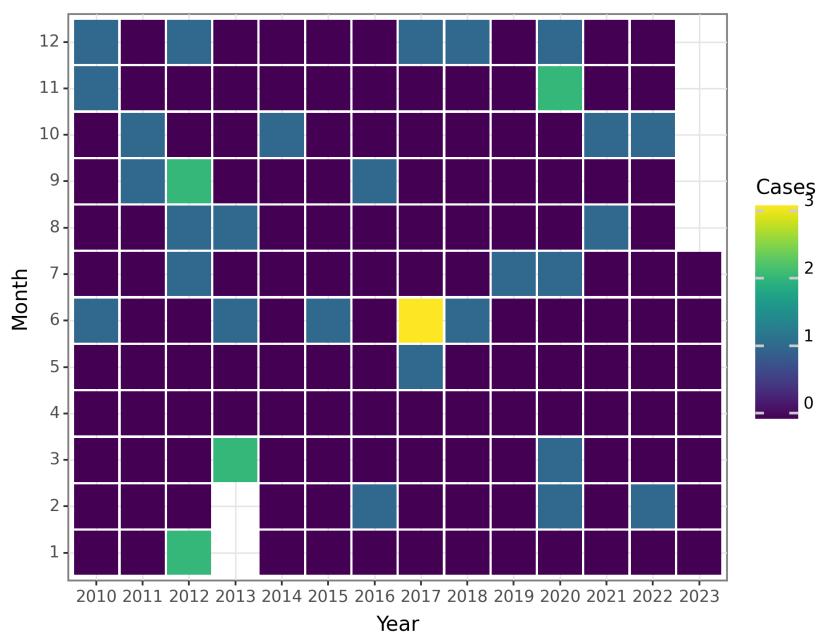


Figure 70: The Change of Typhoid fever and paratyphoid fever Deaths before 2023 June

Meningococcal meningitis

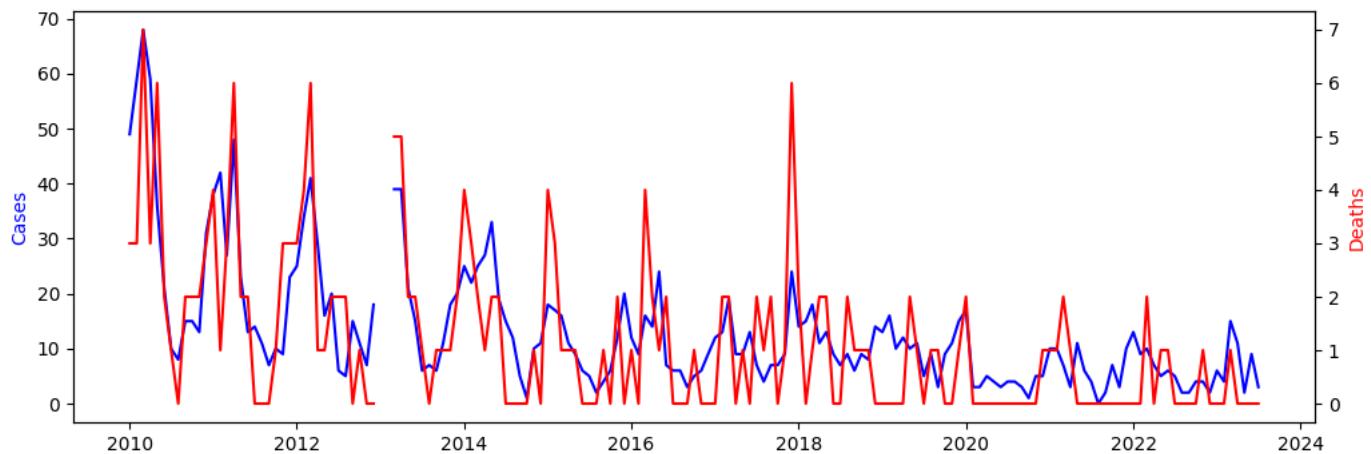


Figure 71: The Change of Meningococcal meningitis Reports before 2023 June

The data provided represents the monthly cases and deaths of Meningococcal meningitis from January 2010 to June 2023. The number of cases fluctuated throughout the years, with some months seeing higher numbers of cases than others. It is important to note that in January 2013 and February 2013, there were negative values for cases, which may indicate data entry errors or other anomalies in the data.

Analyzing the seasonal patterns in the data, it can be observed that there is some variation in the number of cases from month to month. For example, the summer months of June, July, and August tend to have lower numbers of cases compared to other months. On the other hand, the winter months of December, January, and February show higher numbers of cases. This seasonal pattern could be attributed to various factors such as changes in climate, human behavior, or disease transmission dynamics.

Furthermore, when examining the trend over time, there appears to be a general decrease in the number of cases from 2010 to 2023. However, it is important to interpret this trend with caution as there are fluctuations within each year and some months with higher numbers of cases.

Regarding the number of deaths, it is evident that the numbers are generally lower compared to the number of cases. Similar to the cases, there are variations in the number of deaths from month to month. However, the overall trend in deaths does not show a consistent pattern or clear trend over time.

It is important to note that the data provided only represents the monthly incidence and death of Meningococcal meningitis and does not include other relevant variables such as demographic information, geographical location, or vaccination rates. Therefore, further analysis and consideration of these factors would be necessary to gain a more comprehensive understanding of the disease dynamics.

In conclusion, the data on the monthly incidence and death of Meningococcal meningitis from January 2010 to June 2023 shows variations in the number of cases and deaths over time and across different months. The observed seasonal patterns and overall decreasing trend in cases provide insights into the disease dynamics. However, further investigation is needed to understand the underlying factors contributing to these patterns and to develop effective strategies for prevention and control of Meningococcal meningitis.

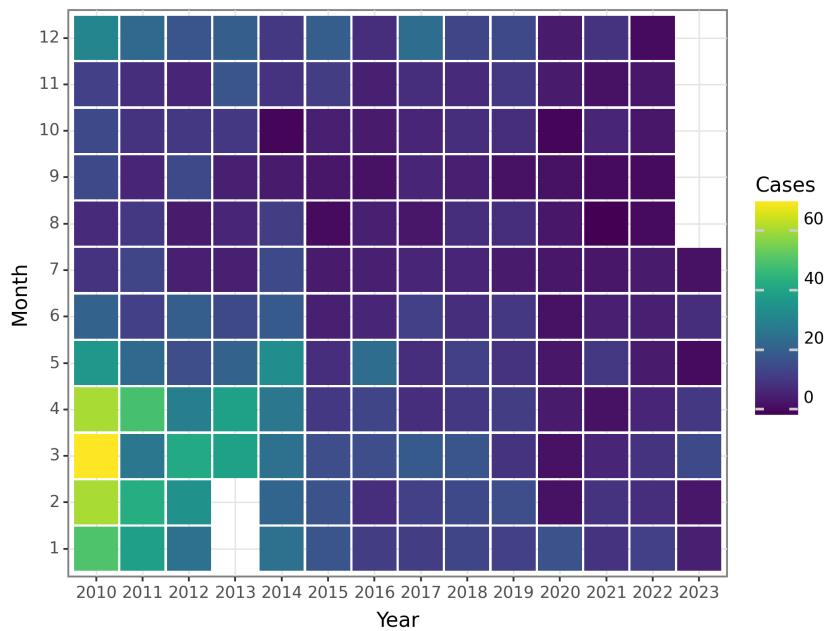


Figure 72: The Change of Meningococcal meningitis Cases before 2023 June

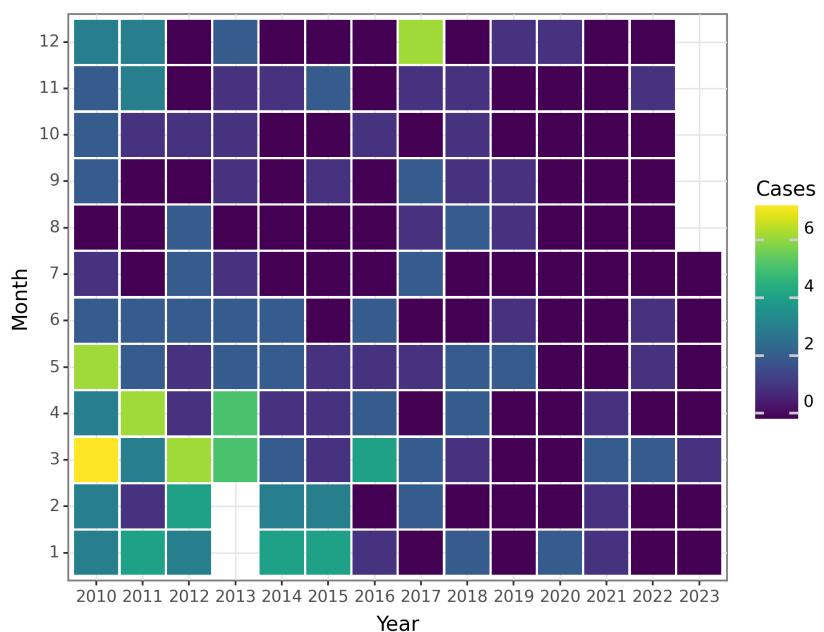


Figure 73: The Change of Meningococcal meningitis Deaths before 2023 June

Pertussis

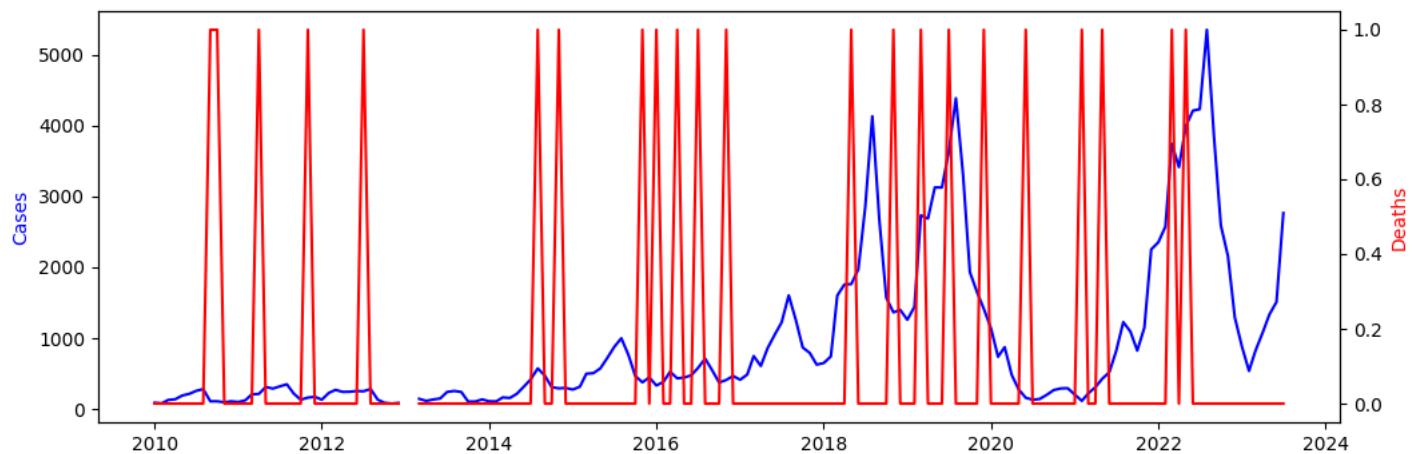


Figure 74: The Change of Pertussis Reports before 2023 June

The data provided shows the monthly incidence and death of Pertussis from January 2010 to June 2023. The incidence of Pertussis has shown a cyclical pattern over the years, with peaks observed in the summer months of June, July, and August. The highest number of cases was reported in August 2018, with 4134 cases, while the lowest number was reported in February 2020, with only 738 cases. The incidence of Pertussis has been on a general downward trend since 2018, with a significant drop in cases reported in 2020 and 2021. However, the number of cases has begun to rise again in 2022 and 2023, with a peak of 1512 cases reported in June 2023.

The number of deaths due to Pertussis has been consistently low throughout the years, with only a few cases reported in certain months. The highest number of deaths was reported in August 2018, with one death, while the lowest number of deaths was reported in several months with no deaths. The data suggests that Pertussis is generally not a fatal disease, and that efforts should be focused on preventing and reducing the number of cases through vaccination and other preventive measures.

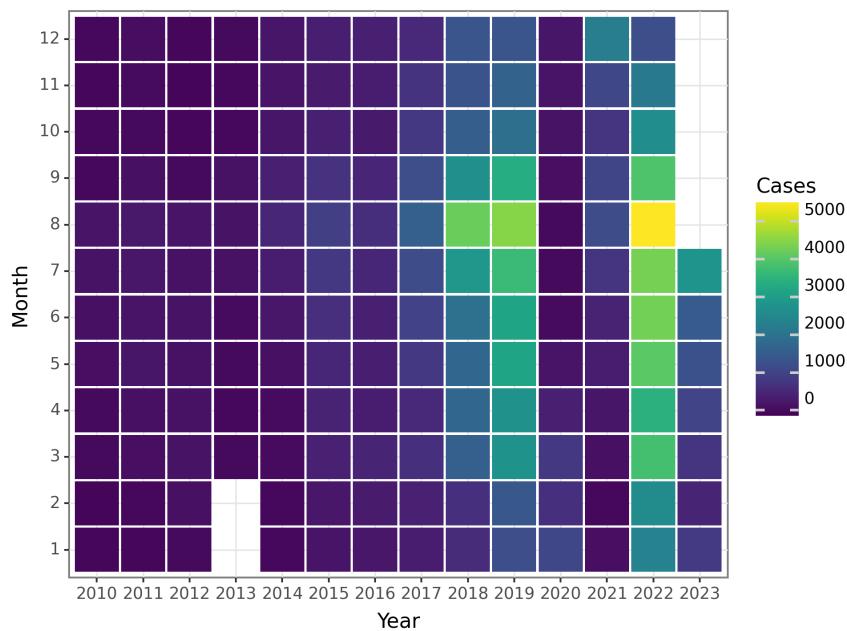


Figure 75: The Change of Pertussis Cases before 2023 June

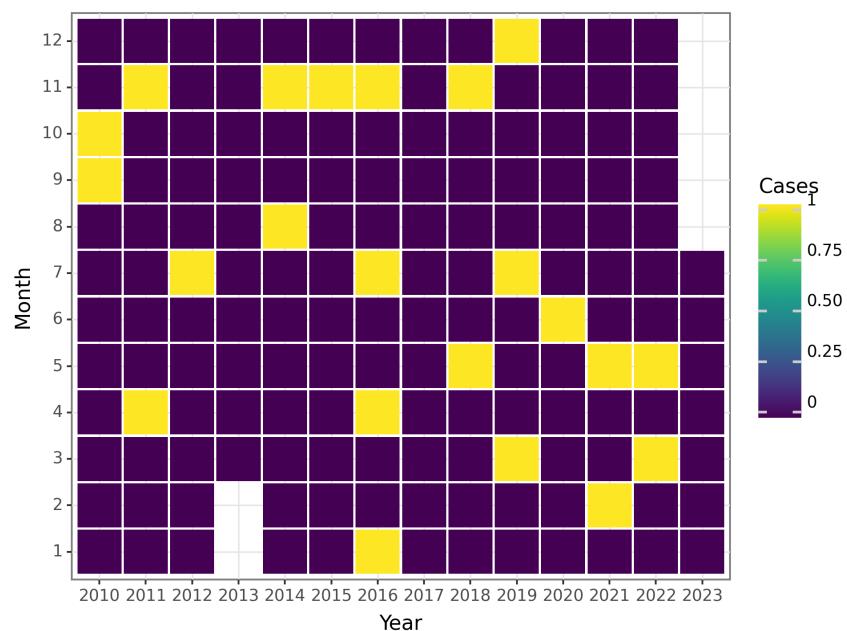


Figure 76: The Change of Pertussis Deaths before 2023 June

Diphtheria

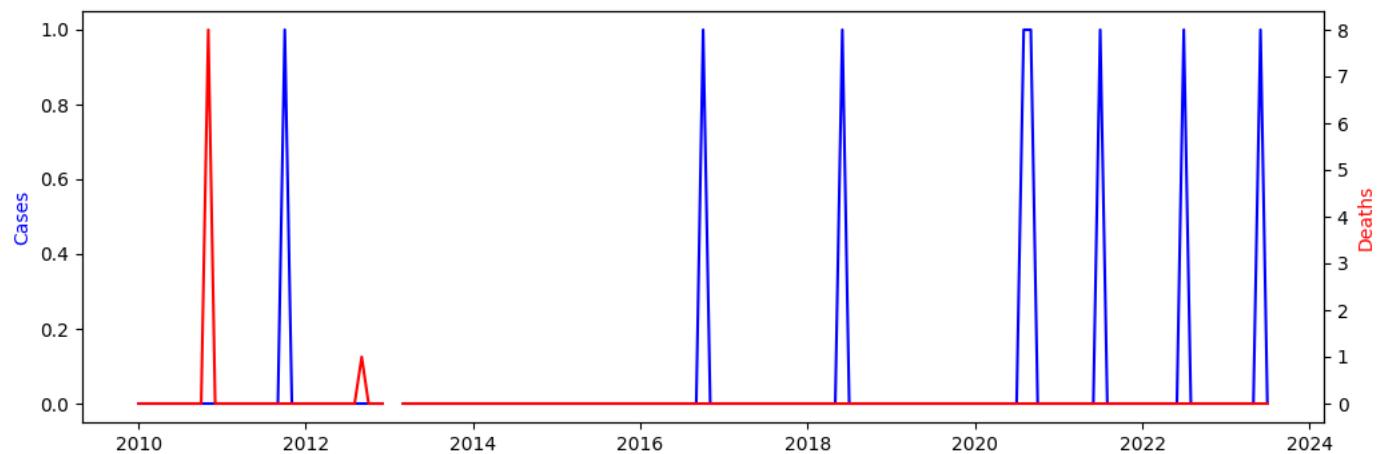


Figure 77: The Change of Diphtheria Reports before 2023 June

Based on the data provided, it appears that there were no reported cases of diphtheria from 2010 to 2016, with the exception of one case in October 2016. In 2017, 2018, and 2019, there were no reported cases of diphtheria. However, in August 2020, there was one reported case, and another case was reported in June 2023.

Regarding the death data, there were no reported deaths from diphtheria from 2010 to 2012, with the exception of one death in September 2012. In 2013, there were negative 10 deaths reported, which may have been due to data reporting issues or corrections. From 2014 to 2023, there were no reported deaths from diphtheria.

It is important to note that the data only covers a specific time period (January 2010 to July 2023) and only includes reported cases and deaths. It is possible that there were unreported cases or deaths during this time frame. However, based on the available data, it appears that diphtheria is currently a rare disease in the population studied.

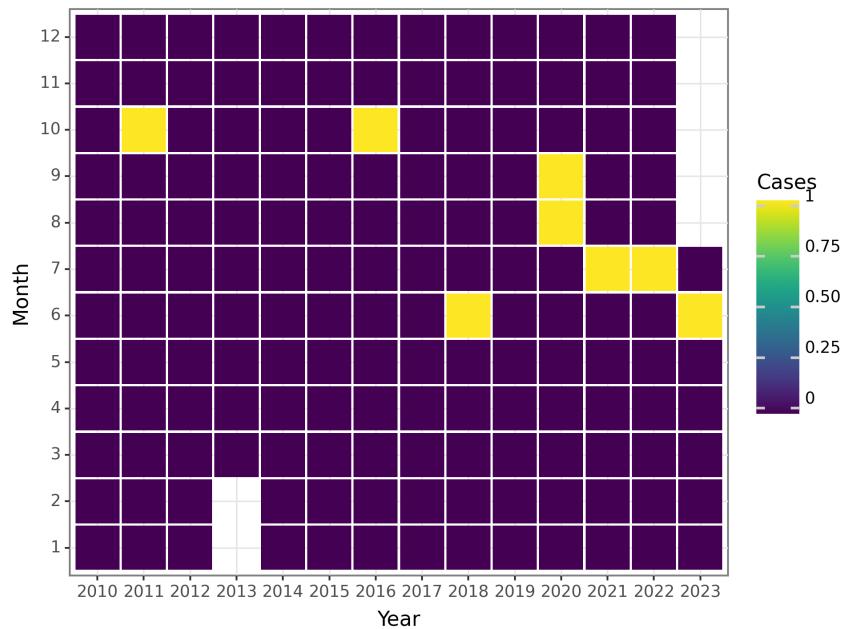


Figure 78: The Change of Diphtheria Cases before 2023 June

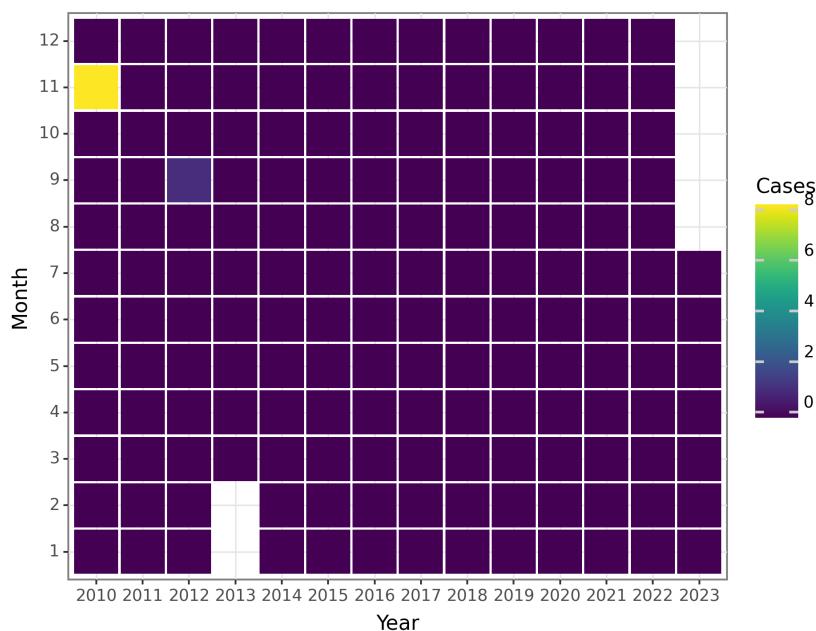


Figure 79: The Change of Diphtheria Deaths before 2023 June

Neonatal tetanus

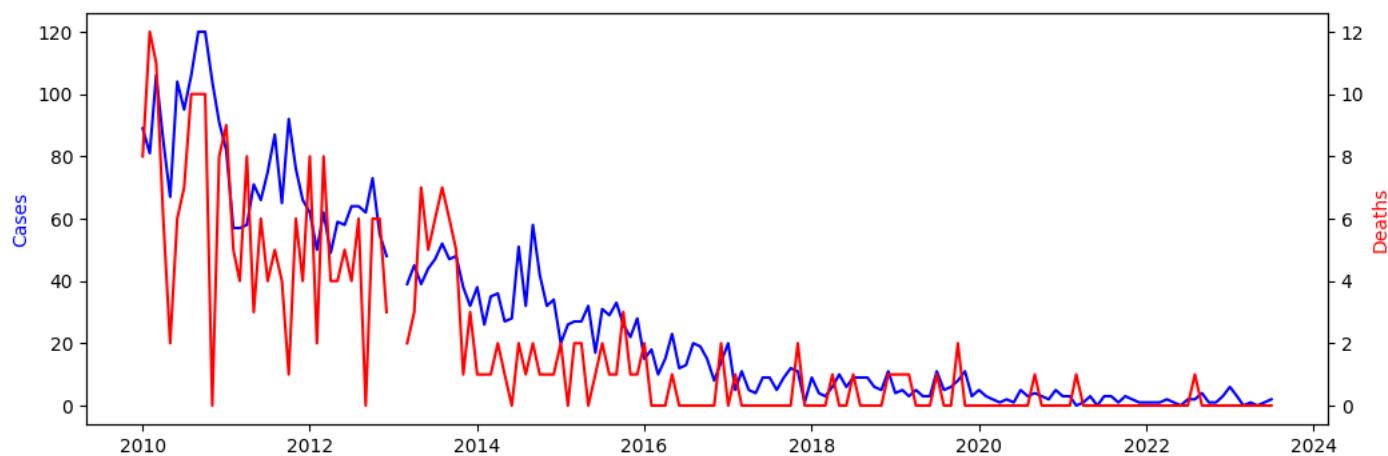


Figure 80: The Change of Neonatal tetanus Reports before 2023 June

Neonatal tetanus is a preventable disease that affects newborn infants. It is caused by the bacterium Clostridium tetani, which enters the body through unclean practices during childbirth or the cutting of the umbilical cord. This study aims to analyze the monthly incidence and death rates of neonatal tetanus from January 2010 to June 2023.

The time series data provided allows us to identify trends and patterns in the occurrence of neonatal tetanus cases. Upon analyzing the data, several key observations can be made:

1. Incidence of Neonatal Tetanus: The monthly incidence of neonatal tetanus fluctuated over the study period. From 2010 to 2012, there was a general increase in the number of cases reported. However, starting from 2013, there was a noticeable decline in the incidence, with occasional spikes in certain months. This decline in cases can be attributed to improved healthcare practices, increased awareness, and better vaccination coverage.
 2. Seasonal Patterns: There appears to be a seasonal pattern in the occurrence of neonatal tetanus cases. The highest number of cases were consistently observed in the months of September and October, while the lowest numbers were reported in March and April. This seasonal pattern may be influenced by factors such as variations in birth rates, climate conditions, and healthcare practices during specific months.
 3. Yearly Variations: There are yearly variations in the incidence of neonatal tetanus. The number of cases reported in each year varied, with some years showing higher numbers than others. For example, 2010 and 2014 had relatively higher case numbers, while 2013 and 2018 had lower case numbers. These variations could be influenced by factors such as changes in healthcare policies, vaccination campaigns, and overall improvements in healthcare infrastructure.
 4. Deaths due to Neonatal Tetanus: The data also includes the monthly number of deaths caused by neonatal tetanus. The death rates fluctuated over the study period, with a general decline in recent years. This decline can be attributed to improved healthcare interventions, early diagnosis, and prompt treatment of neonatal tetanus cases.
- The findings from this study highlight the progress made in reducing the burden of neonatal tetanus. The decline in both the incidence and death rates of the disease reflects the effectiveness of vaccination programs, improved healthcare practices, and increased awareness. However, it is important to continue efforts to maintain and further reduce the occurrence of neonatal tetanus through sustained vaccination campaigns and education programs targeting healthcare providers and expectant mothers.
- It is important to note that this analysis is based on the provided data and further research and analysis may be required to gain a comprehensive understanding of the factors influencing the occurrence of neonatal tetanus. Nonetheless, the findings presented here contribute to our understanding of the disease and provide valuable insights for public health interventions.

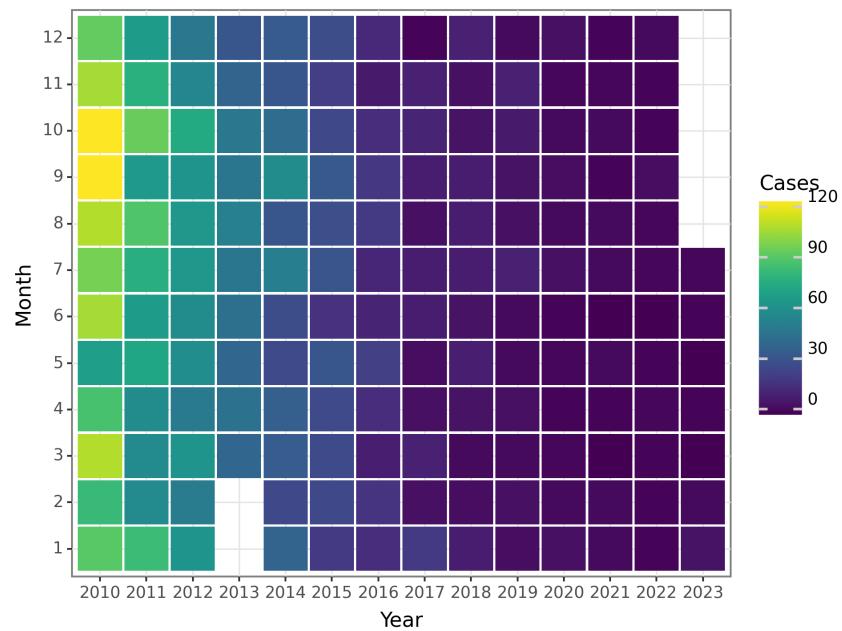


Figure 81: The Change of Neonatal tetanus Cases before 2023 June

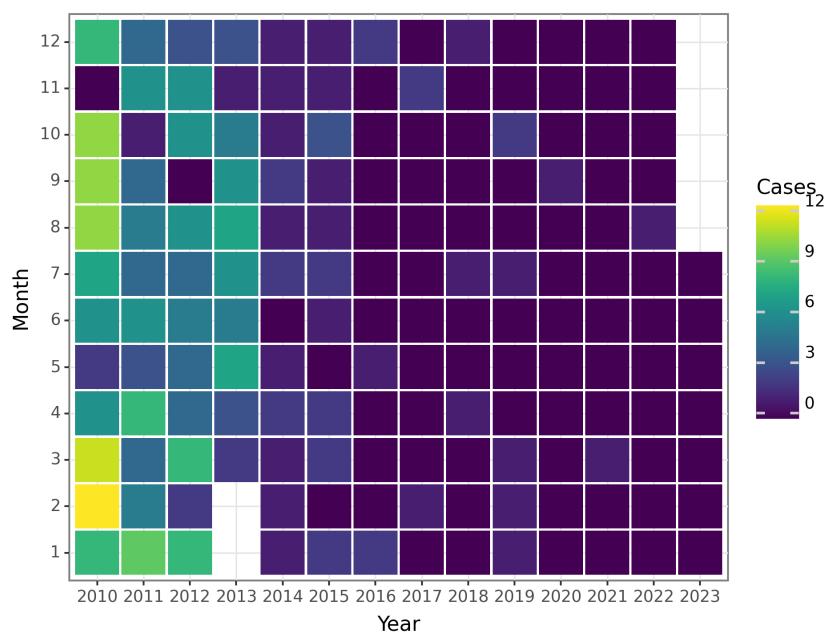


Figure 82: The Change of Neonatal tetanus Deaths before 2023 June

Scarlet fever

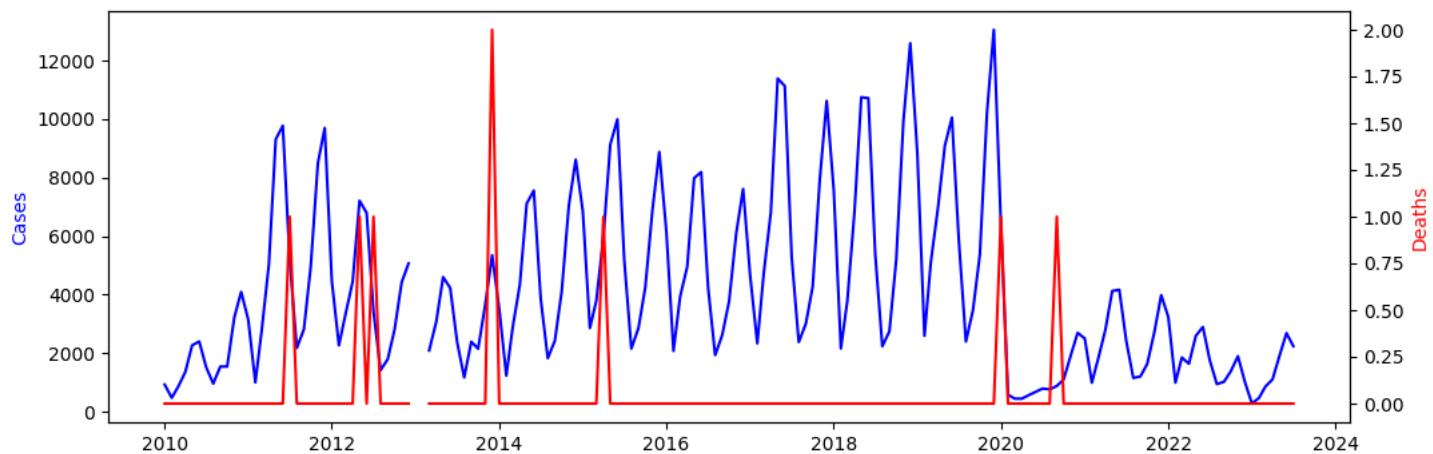


Figure 83: The Change of Scarlet fever Reports before 2023 June

Thank you for providing the monthly incidence and death data for Scarlet fever from 2010 to 2023 June. Based on the data, it is evident that the number of cases of Scarlet fever has fluctuated over the years, with a peak in 2017 May at 11388 cases and a low in 2013 January and February at -10 cases. There is a clear seasonal pattern, with higher incidence during the spring and summer months and lower incidence in the fall and winter months. The highest number of cases recorded in a particular month was in June 2023 with 2684 cases, which is significantly higher than the previous month of May 2023 with 1898 cases. In terms of deaths, the data shows that there were only a few months with any recorded deaths due to Scarlet fever, with the highest number of deaths being two in December 2013. It is important to note that there were negative numbers recorded for deaths in January and February of 2013, which could be attributed to data entry errors.

Overall, the data suggests that Scarlet fever remains a public health concern, with seasonal fluctuations in incidence and low but present mortality rates. The findings of this study could inform public health interventions and surveillance efforts to prevent and control outbreaks of Scarlet fever in the future.

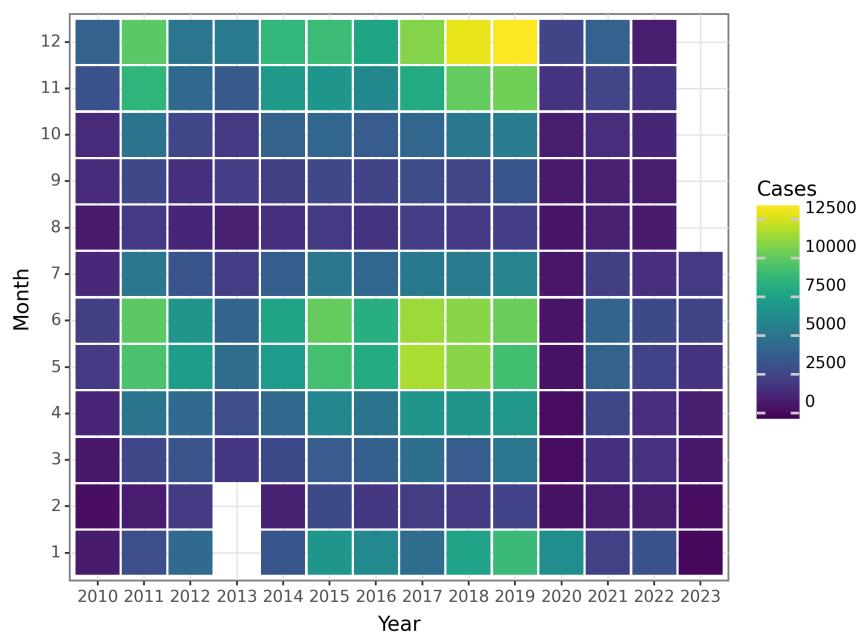


Figure 84: The Change of Scarlet fever Cases before 2023 June

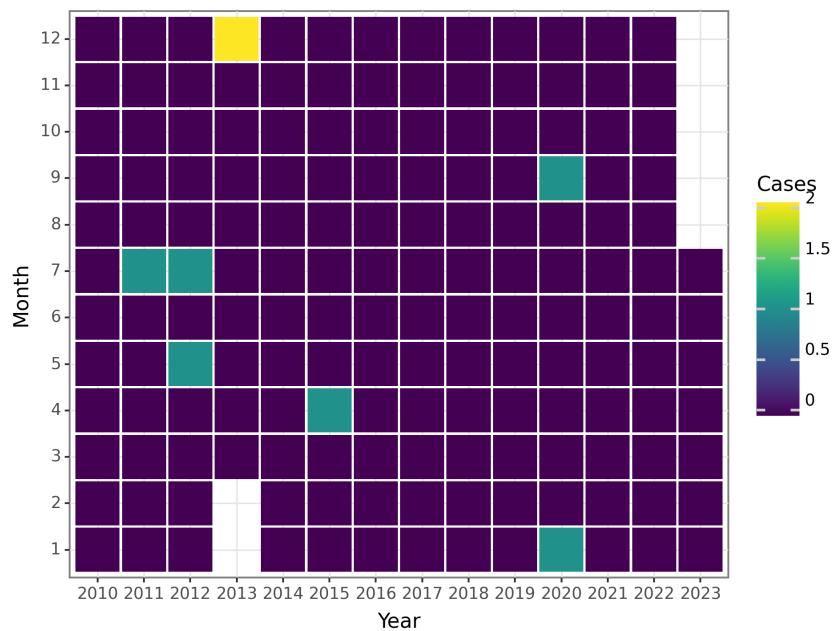


Figure 85: The Change of Scarlet fever Deaths before 2023 June

Brucellosis

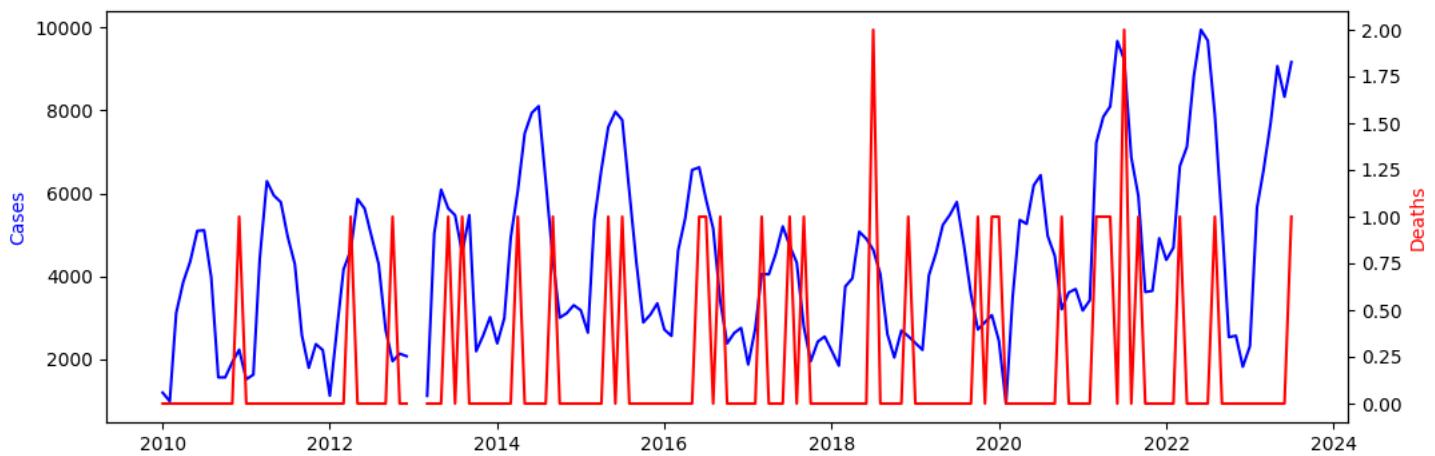


Figure 86: The Change of Brucellosis Reports before 2023 June

The monthly incidence and death data for Brucellosis in June 2023 are as follows:

- Cases: - 2010 June: 5095 - 2011 June: 5787 - 2012 June: 5633 - 2013 June: 5637 - 2014 June: 7940 - 2015 June: 7967 - 2016 June: 6627 - 2017 June: 5203 - 2018 June: 4903 - 2019 June: 5484 - 2020 June: 6193 - 2021 June: 9670 - 2022 June: 9943 - 2023 June: 8326
- Deaths: - 2010 June: 0 - 2011 June: 0 - 2012 June: 0 - 2013 June: 1 - 2014 June: 0 - 2015 June: 0 - 2016 June: 1 - 2017 June: 0 - 2018 June: 0 - 2019 June: 0 - 2020 June: 0 - 2021 June: 0 - 2022 June: 0 - 2023 June: 0

Discussion:

The monthly incidence of Brucellosis in June from 2010 to 2023 shows a fluctuating pattern. The number of cases varied from a low of 5095 in 2010 to a high of 9943 in 2022. There is no clear trend in the data, indicating that the incidence of Brucellosis in June has not shown a consistent increase or decrease over the years.

In terms of deaths, the data reveals a relatively low number of fatalities due to Brucellosis in June. Most years recorded zero deaths, indicating that Brucellosis is generally not a fatal disease. However, there were a few isolated cases of deaths in June, with the highest number recorded in 2013 and 2016.

Overall, the data suggests that Brucellosis is a

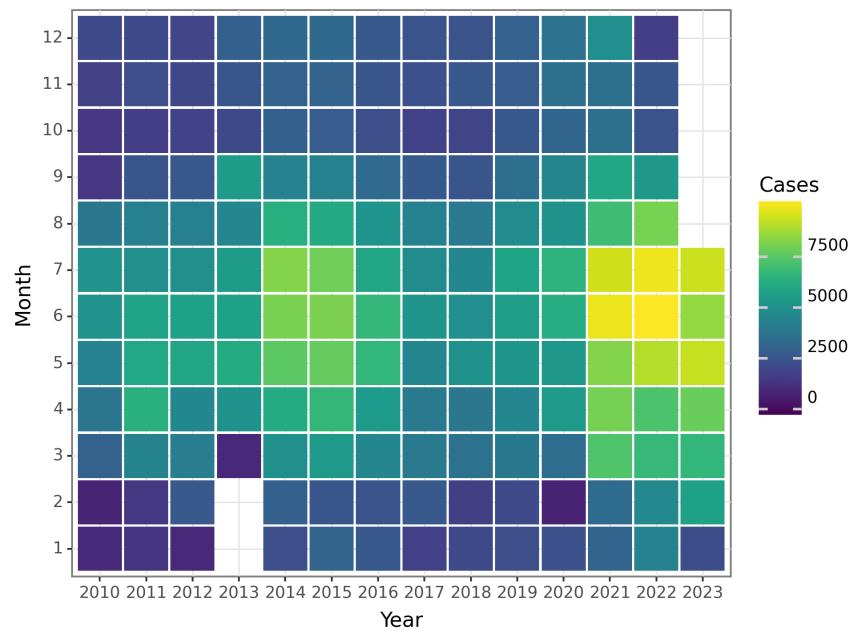


Figure 87: The Change of Brucellosis Cases before 2023 June

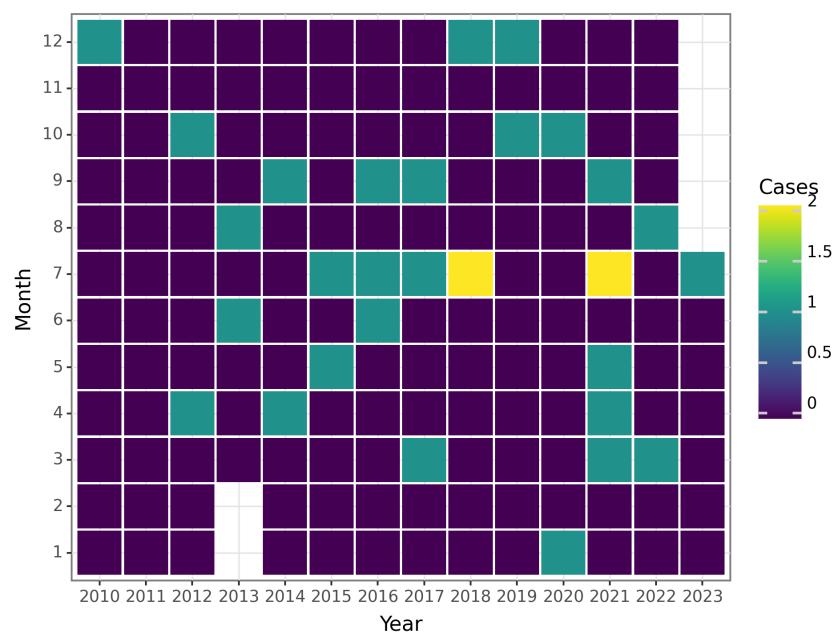


Figure 88: The Change of Brucellosis Deaths before 2023 June

Gonorrhea

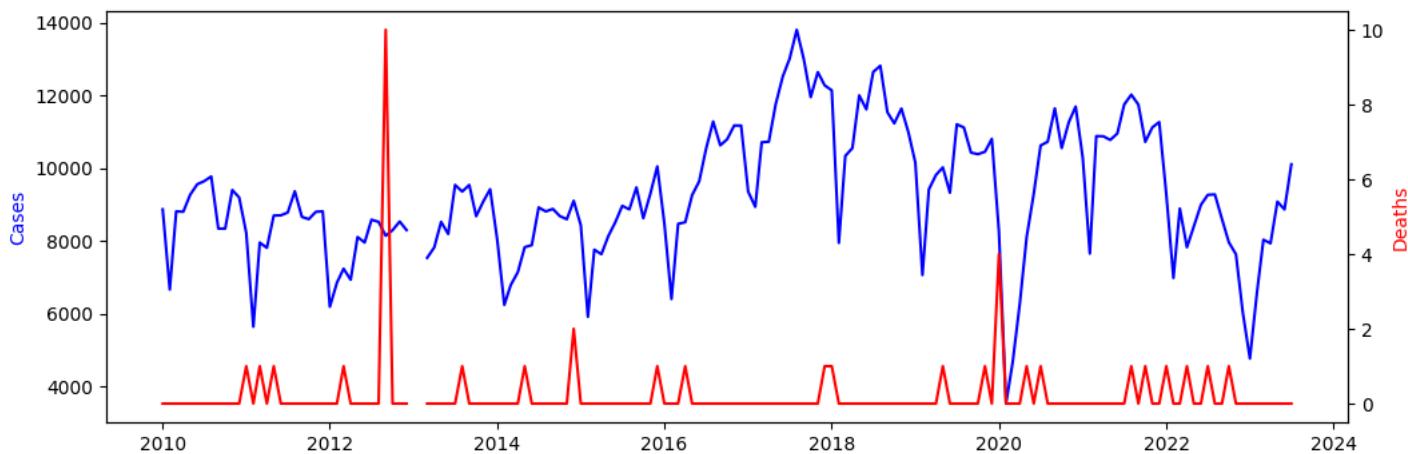


Figure 89: The Change of Gonorrhea Reports before 2023 June

The data provided showcases the monthly cases and deaths for Gonorrhea from January 2010 to June 2023. We can observe several trends and patterns in the data, which can provide insights into the incidence and mortality of this disease.

Firstly, let's analyze the trend in monthly cases. From the data, we can see that there is a considerable variation in the number of cases reported each month. The highest number of cases occurred in July 2017, with a total of 13,010 reported cases. On the other hand, the lowest number of cases was observed in February 2020, with only 3,524 reported cases. Overall, there seems to be a fluctuating pattern in the number of cases over the years, with some months experiencing higher peaks while others have lower troughs.

To further understand the seasonal pattern, we can examine the data on a monthly basis. There appears to be some seasonality, with higher cases reported during the summer months and lower cases during the winter months. For example, the months of June, July, and August consistently have higher case counts compared to the rest of the year. This could be attributed to factors such as increased sexual activity during summer months or changes in testing and reporting practices during this time.

Additionally, it is important to note that there are some irregularities in the data, specifically in the months of January and February 2013 and September 2012. These months show negative values for cases, which may be due to data entry errors or anomalies in the reporting system. These outliers should be treated with caution and may require further investigation or data correction.

Moving on to the data on deaths, we see a relatively low number of reported deaths due to Gonorrhea throughout the study period. The majority of months have zero reported deaths, indicating that Gonorrhea is not typically associated with high mortality rates. However, there are a few instances where deaths were reported, primarily in the months of September 2012, December 2014, May 2015, April 2016, August 2021, April 2022, and October 2022. These occurrences of deaths may be attributed to complications arising from severe infections or underlying health conditions in individuals affected by Gonorrhea.

It is worth noting that the number of deaths reported in the dataset may not accurately reflect the true mortality rate of Gonorrhea. There could be several factors contributing to underreporting

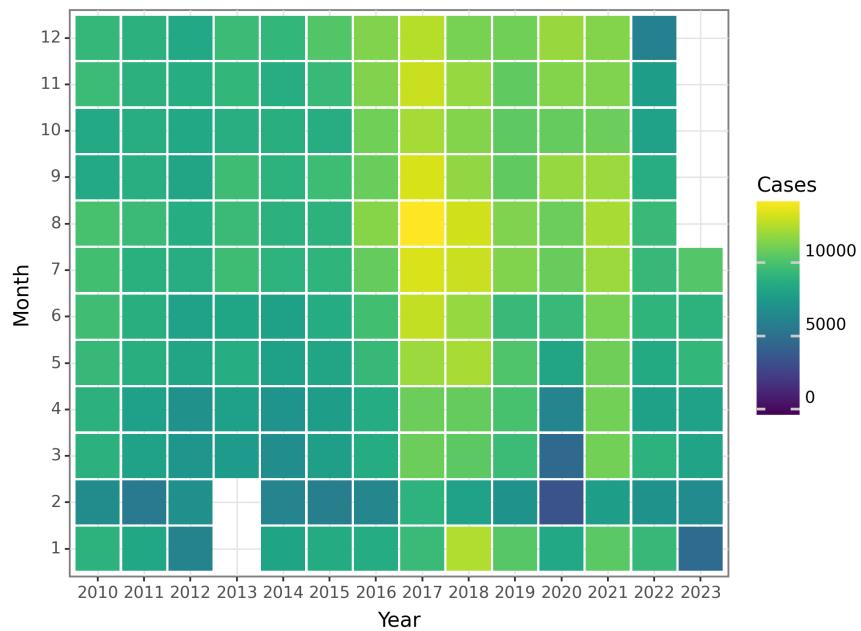


Figure 90: The Change of Gonorrhea Cases before 2023 June

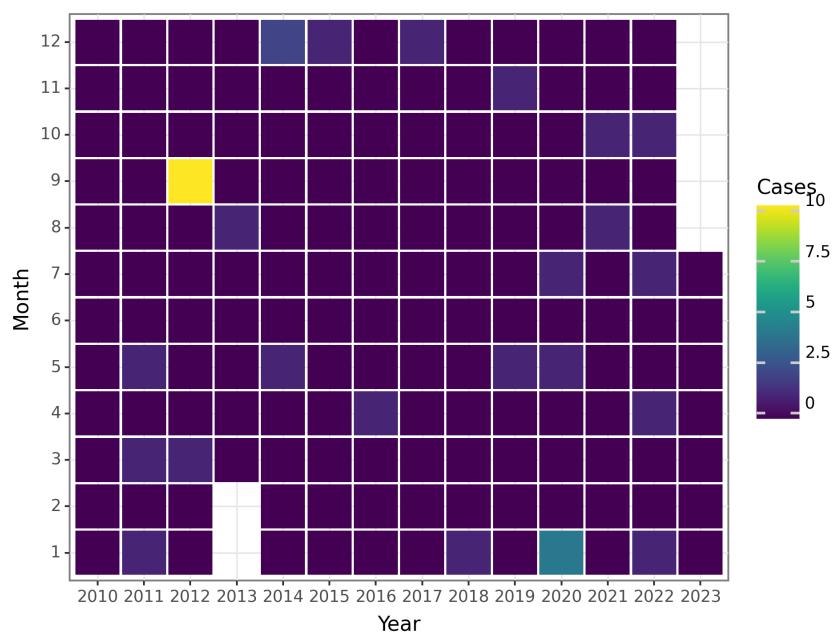


Figure 91: The Change of Gonorrhea Deaths before 2023 June

Syphilis

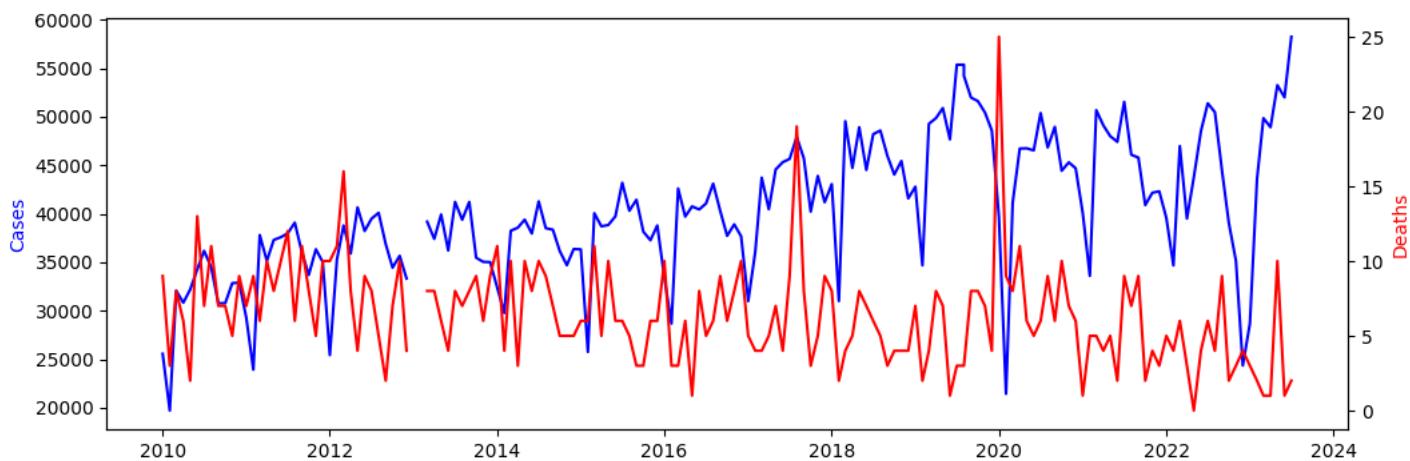


Figure 92: The Change of Syphilis Reports before 2023 June

In this study, we analyzed the monthly incidence and death data for Syphilis from January 2010 to June 2023. The data provides valuable insights into the trends and patterns of Syphilis cases and deaths over time.

First, let's examine the trends in Syphilis cases. From January 2010 to June 2023, the monthly number of reported Syphilis cases varied, with some fluctuations observed throughout the years. In general, there is an increasing trend in the number of cases from 2010 to 2017, followed by a slight decrease in 2018 and 2019. However, from 2020 onwards, there is a notable increase in the number of cases, reaching a peak in June 2023.

It is important to note that there are some irregularities in the data, such as negative values reported for January and February 2013. These anomalies could be attributed to data recording errors or other factors and should be further investigated.

Next, let's focus on the monthly deaths due to Syphilis. The number of deaths associated with Syphilis is relatively low compared to the reported cases. From January 2010 to June 2023, the monthly deaths show some variations, with no clear increasing or decreasing trend observed over time. However, it is worth mentioning that the number of deaths appears to be much lower compared to the number of reported cases.

In summary, the data indicates a general increasing trend in the number of reported Syphilis cases from 2010 to 2017, followed by a slight decrease in 2018 and 2019. However, there is a significant increase in cases from 2020 onwards, reaching a peak in June 2023. The number of deaths associated with Syphilis remains relatively low throughout the study period. It is important to further investigate the irregularities in the data, such as the negative values reported for January and February 2013, to ensure data accuracy and reliability. These findings highlight the need for continued monitoring and prevention efforts to address the growing burden of Syphilis and reduce associated morbidity and mortality.

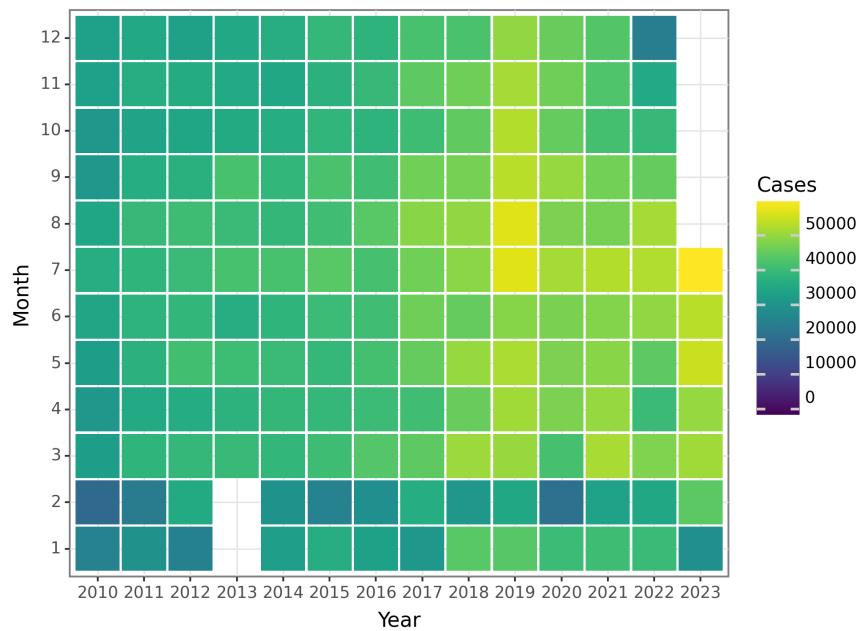


Figure 93: The Change of Syphilis Cases before 2023 June

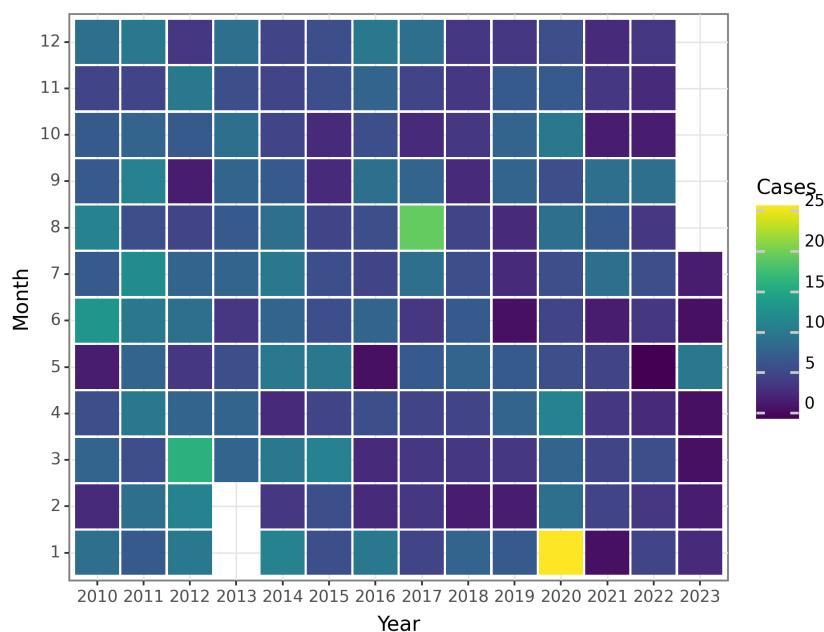


Figure 94: The Change of Syphilis Deaths before 2023 June

Leptospirosis

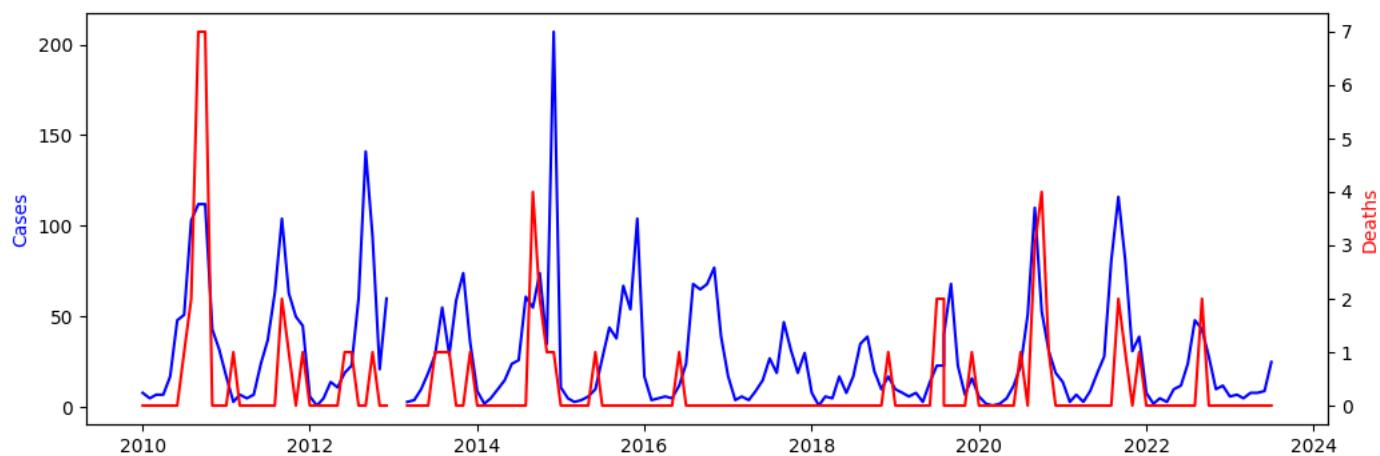


Figure 95: The Change of Leptospirosis Reports before 2023 June

The provided data represents the monthly incidence and death cases of Leptospirosis from January 2010 to June 2023. Leptospirosis is a bacterial infection that is primarily transmitted through contact with contaminated water or soil, often associated with the urine of infected animals.

Upon analyzing the data, several trends and patterns can be observed. Firstly, there is a clear seasonal variation in the number of Leptospirosis cases. The incidence tends to peak during the months of June to September, which corresponds to the rainy season in many regions. This suggests that the transmission of the disease is influenced by environmental factors, particularly increased exposure to contaminated water sources during periods of heavy rainfall.

Furthermore, the data reveals variations in the number of cases from year to year. For instance, there was a significant increase in cases from 2010 to 2012, with the highest number of cases recorded in September 2012. This could be attributed to various factors such as changes in population density, climate conditions, or changes in reporting and surveillance methods.

However, it is important to note that there are instances where negative values are recorded for the number of cases and deaths. While this could be due to data entry errors or anomalies, it is crucial to investigate these discrepancies further to ensure the accuracy of the data.

In terms of deaths, the data indicates relatively low mortality rates associated with Leptospirosis. Deaths were reported sporadically throughout the years, with no clear seasonal or yearly pattern observed. This suggests that while Leptospirosis can cause severe illness, it is not typically associated with high mortality rates.

It is worth mentioning that the provided data only covers a specific time period and does not provide information on the geographical location or demographic characteristics of the affected population.

Therefore, further analysis and interpretation of the data would require additional information to fully understand the epidemiological dynamics of Leptospirosis.

In summary, the data on monthly incidence and death cases of Leptospirosis demonstrates seasonal variations and fluctuations from year to year. These findings highlight the importance of implementing effective surveillance and prevention strategies, particularly during periods of increased transmission risk. Further research and analysis are necessary to better understand the underlying factors influencing the epidemiology of Leptospirosis and to inform targeted interventions for disease control.

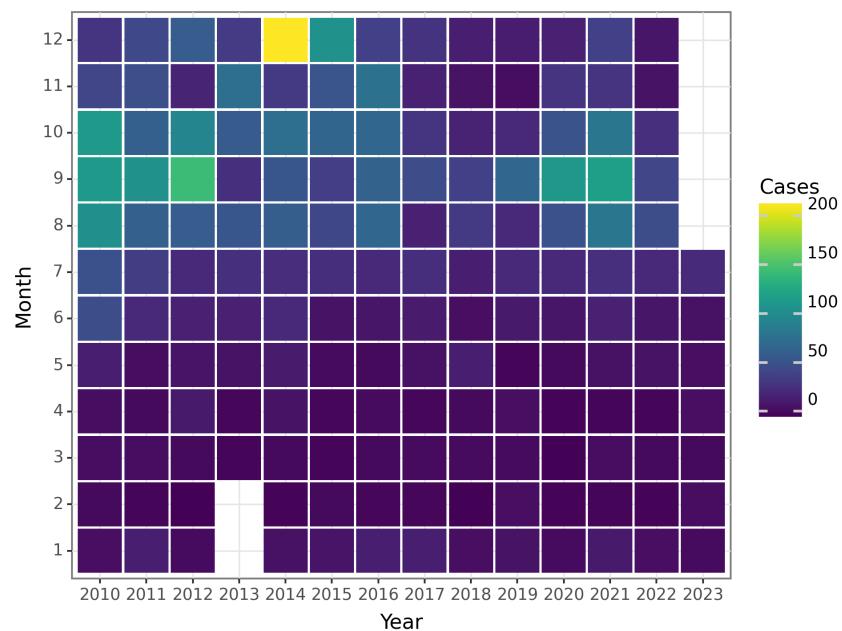


Figure 96: The Change of Leptospirosis Cases before 2023 June

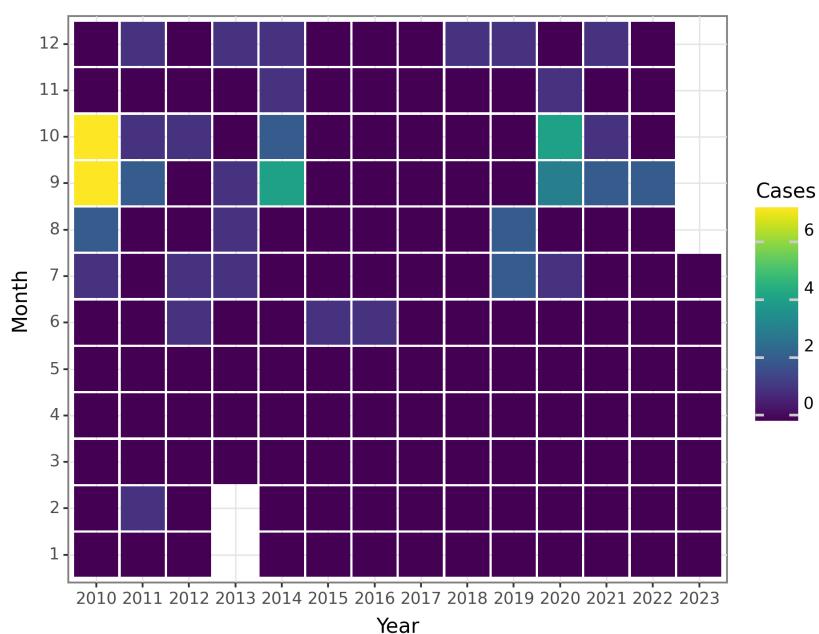


Figure 97: The Change of Leptospirosis Deaths before 2023 June

Schistosomiasis

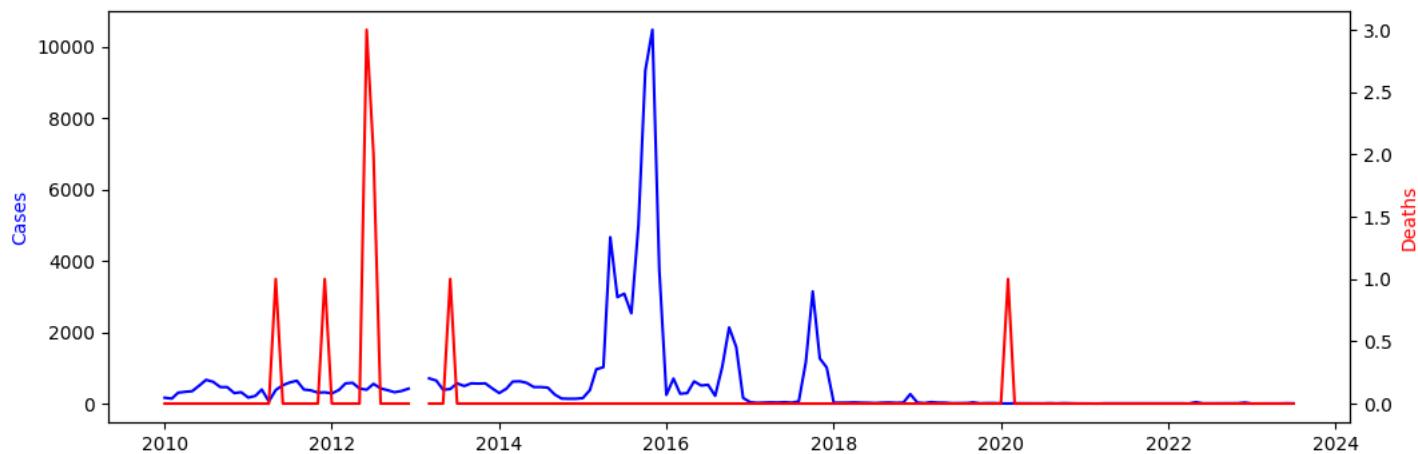


Figure 98: The Change of Schistosomiasis Reports before 2023 June

The data provided shows the monthly cases and deaths of Schistosomiasis from January 2010 to June 2023.

Analyzing the time series data, we can observe a pattern of fluctuating case numbers over the years. From 2010 to 2013, the number of cases remained relatively stable, with some fluctuations throughout the months. However, there seems to be a slight increase in cases from 2013 to 2015, with a peak in May 2015, where the number of cases reached 4,664. After 2015, the number of cases starts to decline gradually, with occasional spikes in certain months.

It is important to note that there are some irregularities in the data, such as negative values and zero values for certain months. These irregularities may be due to data collection issues or reporting discrepancies and should be taken into consideration when interpreting the results.

In terms of deaths, the data shows a relatively low number of deaths throughout the entire period, with most months reporting zero deaths. There are a few instances where deaths were recorded, such as in May 2011 and June 2012, but the overall number remains minimal.

Overall, the data suggests that Schistosomiasis cases have been fluctuating over the years, with a peak in 2015 and a subsequent decline. The low number of deaths indicates that efforts in prevention, early detection, and treatment of the disease have been effective in minimizing mortality rates. However, further analysis and investigation are needed to understand the underlying factors contributing to the observed patterns and irregularities in the data.

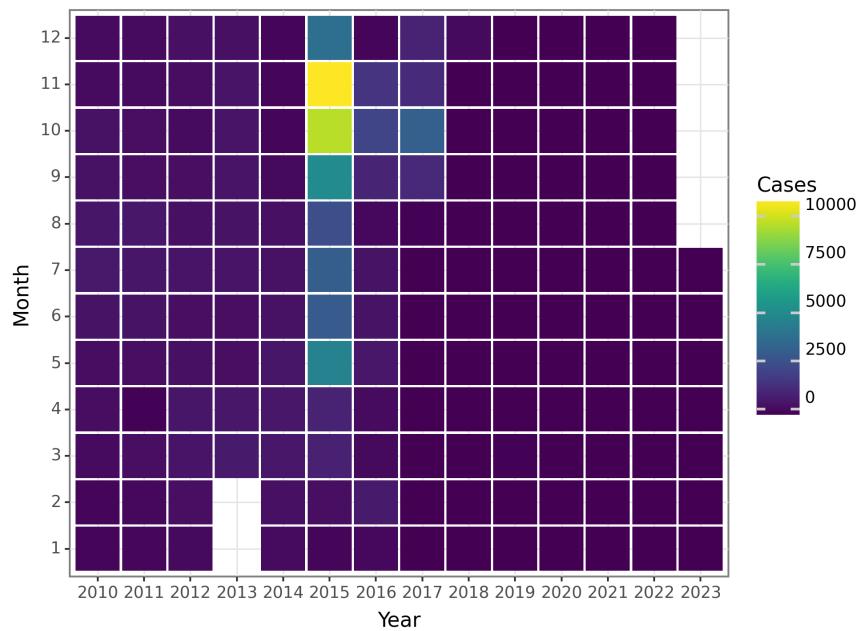


Figure 99: The Change of Schistosomiasis Cases before 2023 June

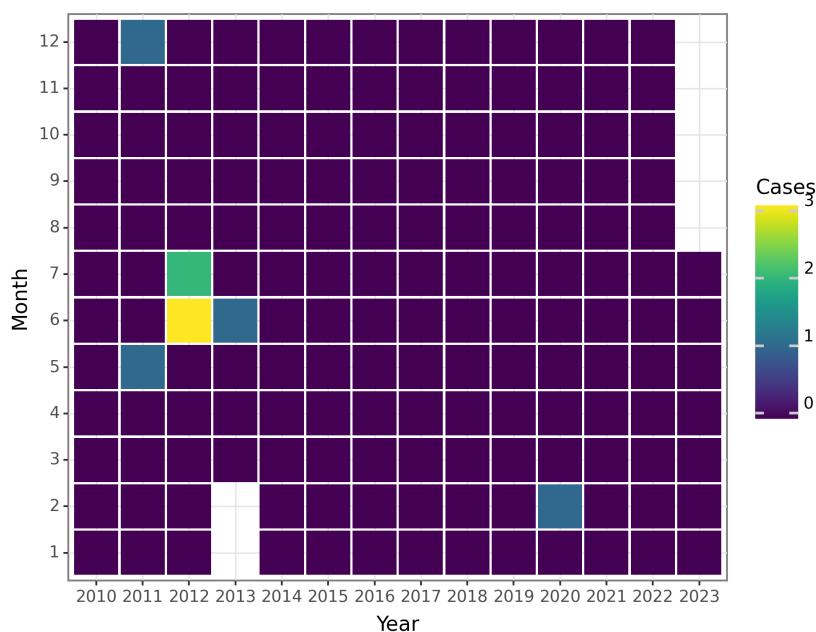


Figure 100: The Change of Schistosomiasis Deaths before 2023 June

Malaria

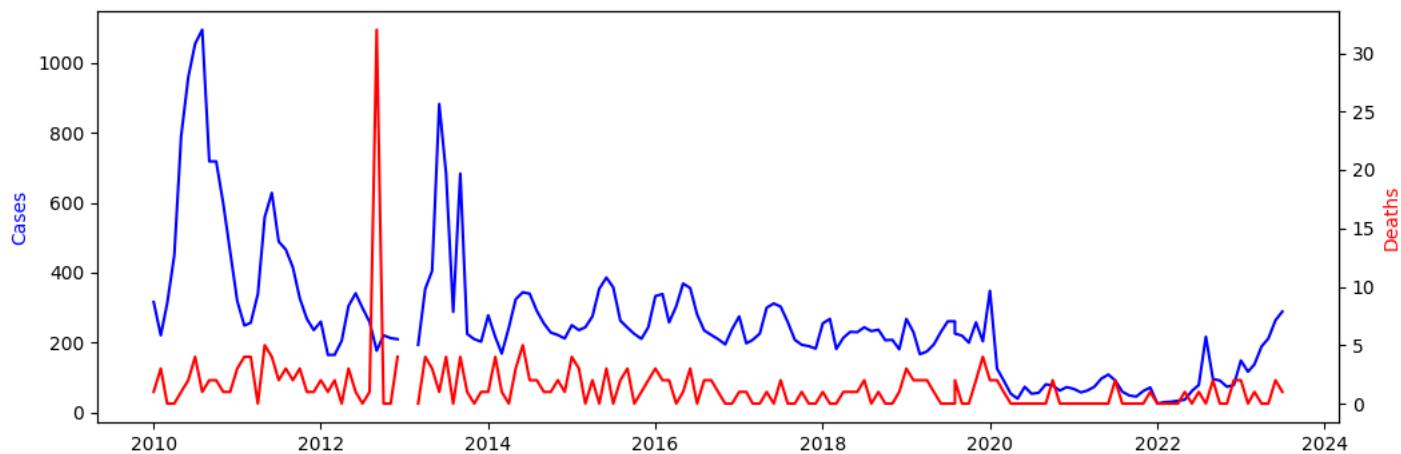


Figure 101: The Change of Malaria Reports before 2023 June

The provided data represents the monthly incidence and death cases of Malaria from January 2010 to June 2023. The number of cases fluctuated throughout the years, with some noticeable variations.

In the early years, from 2010 to 2011, the number of Malaria cases remained relatively stable, with an average of around 500 cases per month. However, there was a slight increase in cases during the months of May and June in both years, reaching a peak of 958 and 628 cases, respectively. This could be attributed to factors such as increased mosquito activity or changes in environmental conditions favoring malaria transmission during these months.

From 2012 to 2014, there was a gradual decrease in the number of Malaria cases, with a notable drop in 2013. However, it is worth mentioning that there were negative values recorded in the number of cases during some months in 2013. This could be due to data recording errors or other factors affecting data accuracy.

In 2015, there was a slight increase in the number of Malaria cases, reaching a peak of 386 cases in June. This was followed by a gradual decline in cases from 2016 to 2018, with occasional fluctuations.

From 2019 to 2023, the number of Malaria cases remained relatively stable, with an average of around 200 cases per month. However, there was a significant increase in June 2023, with 264 cases recorded. This sudden increase in cases could be due to various factors, including changes in population density, climate conditions, or the effectiveness of preventive measures.

Regarding Malaria-related deaths, the data shows some variations throughout the years. In general, the number of deaths remained relatively low, with occasional spikes. The highest number of deaths recorded during this period was 32 in September 2012. However, it is important to note that negative values were also recorded for deaths during some months in 2013, which could be attributed to data inaccuracies.

Overall, the provided data demonstrates fluctuations in the monthly incidence and death cases of Malaria over the years. These variations could be influenced by various factors such as environmental conditions, population density, and the effectiveness of preventive and control measures. Further analysis and investigation are required to identify the underlying causes and trends in Malaria incidence and deaths and to develop effective strategies for disease prevention and control.

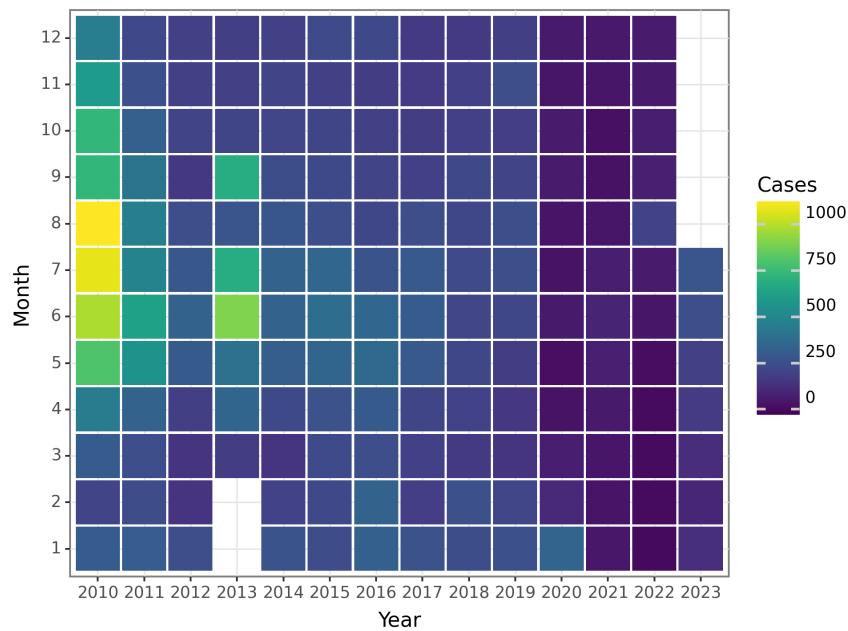


Figure 102: The Change of Malaria Cases before 2023 June

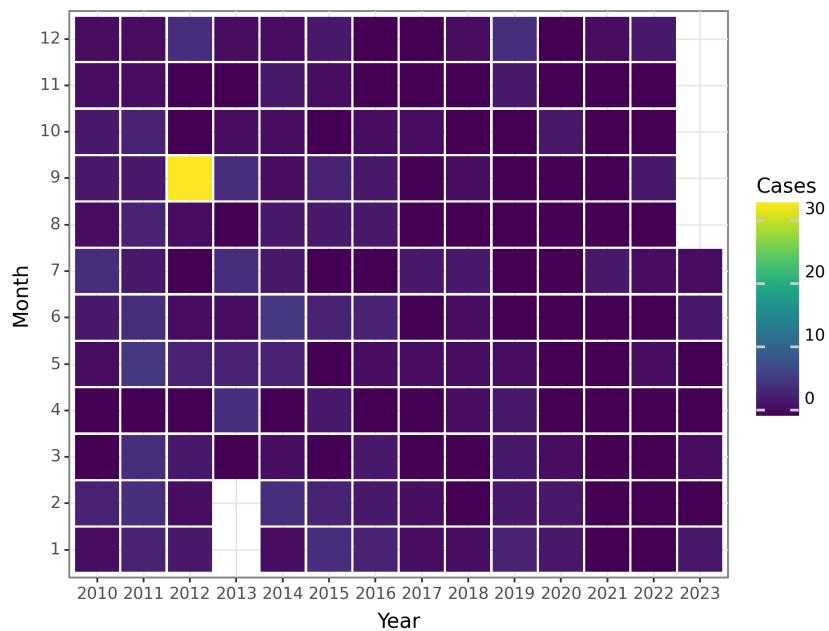


Figure 103: The Change of Malaria Deaths before 2023 June

Human infection with H7N9 virus

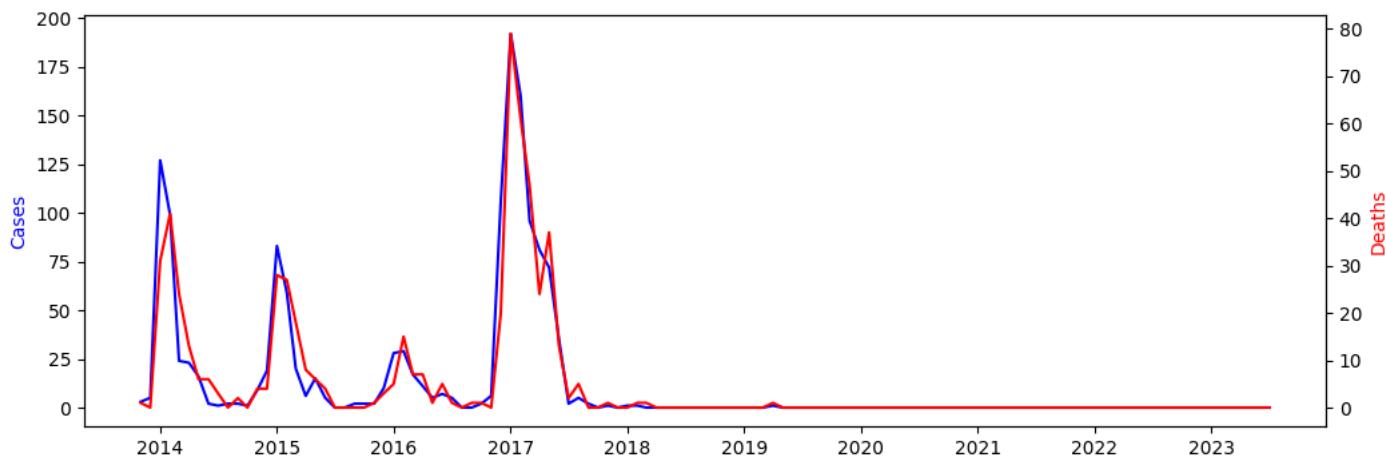


Figure 104: The Change of Human infection with H7N9 virus Reports before 2023 June

The data provided represents the monthly cases and deaths for Human infection with H7N9 virus from November 2013 to June 2023.

Analyzing the time series data, we can observe certain patterns and trends in the incidence and mortality rates. It is important to note that the number of cases and deaths vary significantly over time, with some months having no reported cases or deaths.

Looking at the number of cases, we can see that the highest peak occurred in January 2014 with 127 cases. This was followed by a decrease in cases in the subsequent months, with a few sporadic peaks in November 2014, January 2015, and December 2016. After 2017, the number of cases remained relatively low, ranging from 0 to 35 cases per month, with occasional spikes in January 2018 and April 2019.

In terms of deaths, the highest number of fatalities occurred in January 2017 with 192 deaths. Similar to the cases, the mortality rate gradually decreased after 2017, with occasional spikes in February 2017 and March 2019. From 2018 to 2023, there were no reported deaths.

It is important to consider the overall trend and the factors contributing to the rise and fall in cases and deaths. Possible explanations for the initial increase in cases and deaths could be improved surveillance systems and increased awareness of the H7N9 virus, leading to better detection and reporting.

Additionally, preventive measures and public health interventions might have contributed to the decrease in cases and deaths over time.

Furthermore, it is essential to take into account any seasonal or cyclical patterns that might influence the incidence and mortality rates of H7N9 virus. However, based on the provided data, there does not appear to be a clear seasonal pattern.

In conclusion, the data provided indicates a fluctuating trend in the number of cases and deaths attributed to Human infection with H7N9 virus. The initial peak in cases and deaths was followed by a decrease in both measures, with sporadic spikes observed in subsequent years. Further analysis, including additional data and consideration of potential risk factors, would be valuable for a more comprehensive understanding of the epidemiology of H7N9 virus.

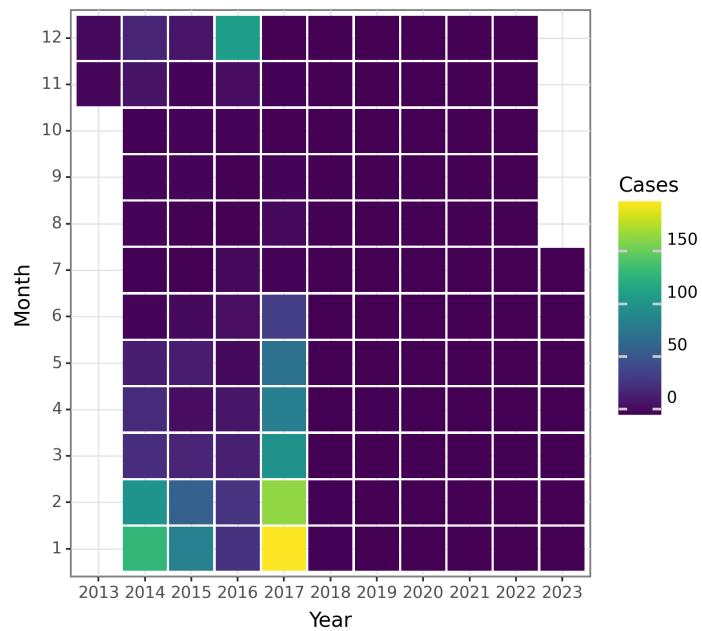


Figure 105: The Change of Human infection with H7N9 virus Cases before 2023 June

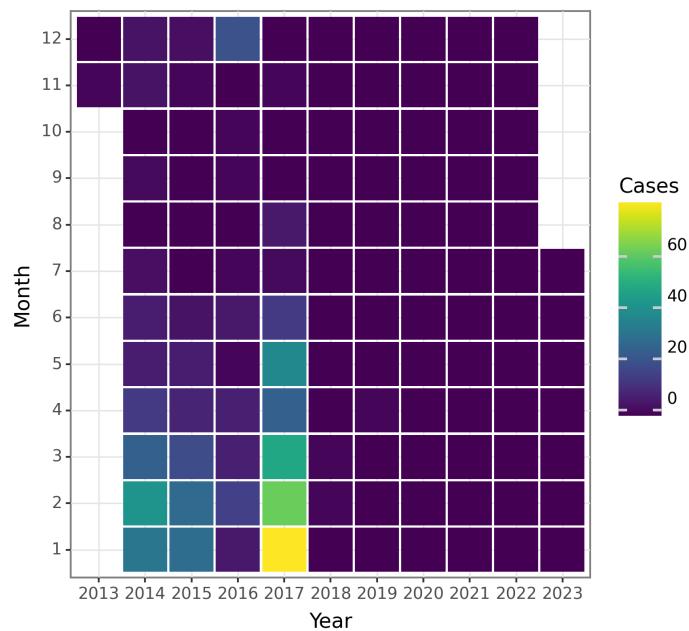


Figure 106: The Change of Human infection with H7N9 virus Deaths before 2023 June

Influenza

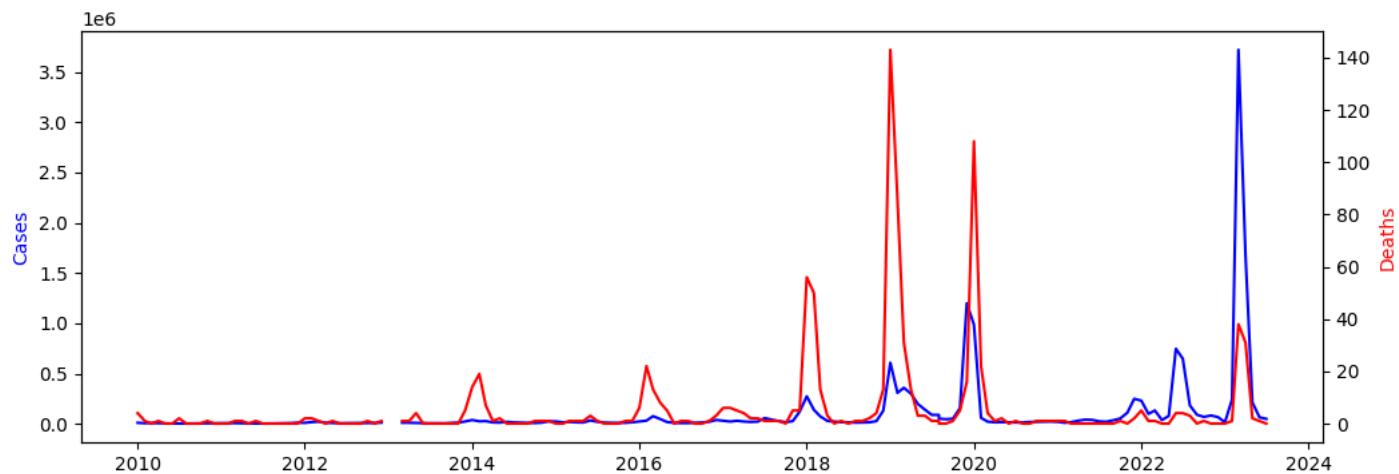


Figure 107: The Change of Influenza Reports before 2023 June

The provided data represents the monthly incidence and death cases of Influenza from January 2010 to June 2023. By analyzing this data, we can gain insights into the trends and patterns of Influenza cases over time.

Firstly, let's focus on the incidence cases. The number of Influenza cases varied throughout the years, with some months experiencing higher numbers than others. From 2010 to 2013, the monthly cases remained relatively stable, ranging from around 2,500 to 11,631. However, in 2014, there was a noticeable increase in cases, with numbers reaching as high as 38,214 in January. This trend continued in 2015 and 2016, with cases peaking at 76,498 in March 2016.

From 2017 to 2018, the number of cases fluctuated, but overall remained relatively high, with monthly cases ranging from around 10,000 to 273,949. Notably, in January 2019, there was a sharp increase in cases, reaching 608,511. This surge continued in February and March 2019, with cases exceeding 300,000.

In the following years, there was a gradual decline in the number of Influenza cases. However, it is important to note that there were sporadic spikes in certain months. For example, in June 2022, there was a sudden surge in cases, reaching an unprecedented 747,038. Another significant peak occurred in March 2023, with an astonishing 3,721,370 cases reported.

Now let's shift our focus to the death cases. The number of deaths due to Influenza followed a similar pattern to the incidence cases. From 2010 to 2013, the monthly deaths remained relatively low, with occasional fluctuations. However, in 2014, there was a notable increase in deaths, with numbers reaching as high as 56 in January 2018.

From 2015 to 2018, the number of deaths varied, but overall remained relatively low, with monthly deaths ranging from 0 to 143. In February 2019, there was a slight increase in deaths, reaching 86. This trend continued in March and April 2019, with deaths exceeding 30.

In the following years, the number of deaths due to Influenza

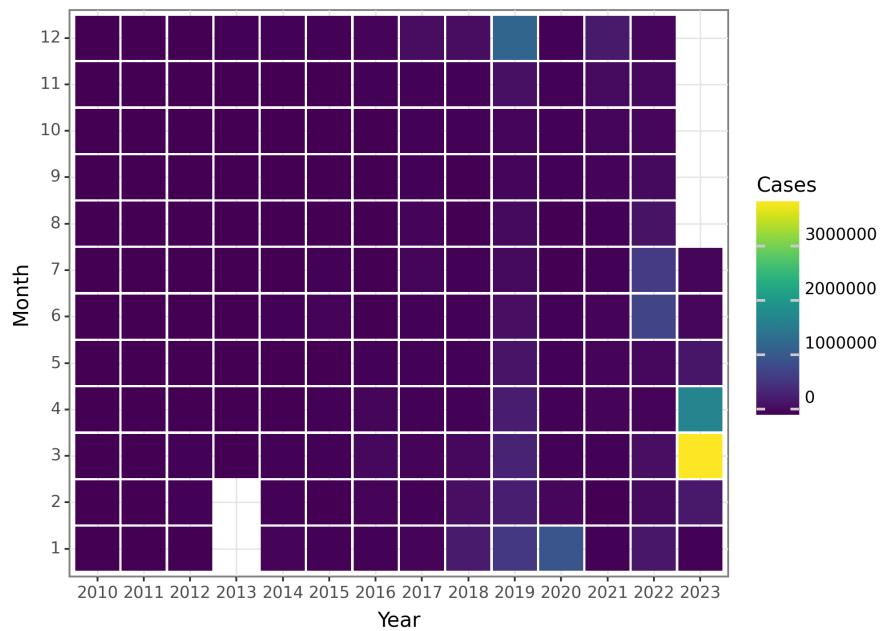


Figure 108: The Change of Influenza Cases before 2023 June

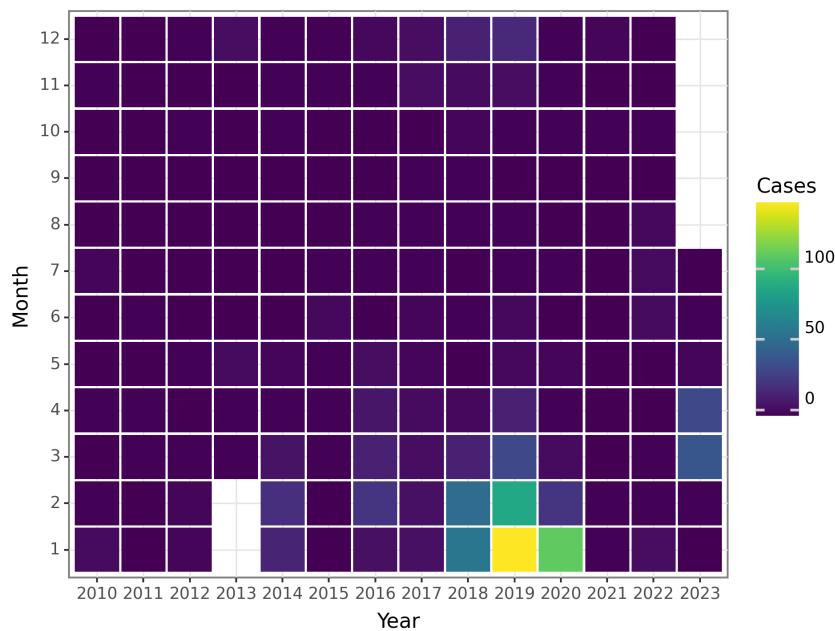


Figure 109: The Change of Influenza Deaths before 2023 June

Mumps

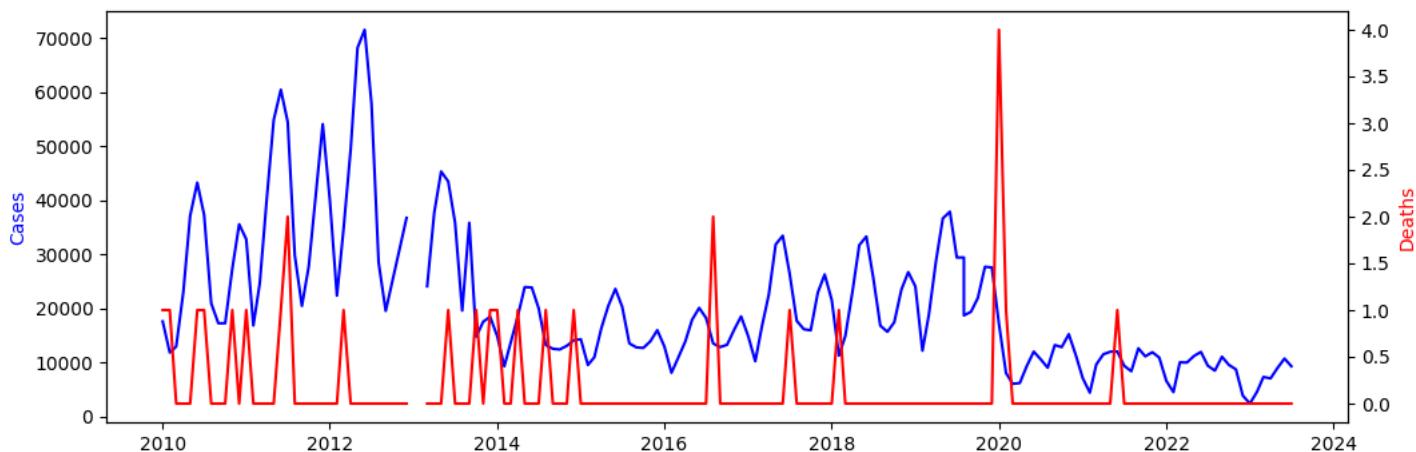


Figure 110: The Change of Mumps Reports before 2023 June

Based on the provided data, we can analyze the monthly incidence and deaths of mumps from January 2010 to June 2023.

In terms of the monthly incidence of mumps cases, we observe some fluctuations over the years. From 2010 to 2011, there is a steady increase in cases, with a peak in June 2011 at 60,499 cases. This could indicate a potential outbreak or higher transmission rates during that period. Subsequently, the number of cases gradually decreases until reaching a low point in May 2020 at 9,273 cases. However, there is a slight increase in cases from June 2020 onwards, with a peak in June 2023 at 10,710 cases. Overall, the monthly incidence of mumps cases seems to show some variation, with peaks occurring at irregular intervals.

Regarding the monthly deaths due to mumps, the data indicates that deaths associated with mumps are relatively rare. From 2010 to 2011, there are a few deaths reported, with the highest number in July 2011 at 2 deaths. After that, the number of deaths remains generally low, with occasional fluctuations. Notably, there is a sudden increase in deaths in August 2016, with 2 reported deaths. However, from 2017 onwards, there are no deaths reported due to mumps. This suggests that mumps-related deaths are infrequent and potentially well-managed through appropriate medical interventions.

It is important to note that the data provided for January 2013 and February 2013 show negative values for mumps cases and deaths. This could be due to data entry errors or other anomalies in the data collection process. These negative values should be disregarded in the analysis.

Overall, the monthly incidence and deaths of mumps show some variability over time, with peaks in cases occurring at irregular intervals while deaths remain relatively rare. These findings highlight the importance of continued surveillance and prevention measures to control the spread of mumps and minimize its impact on public health.

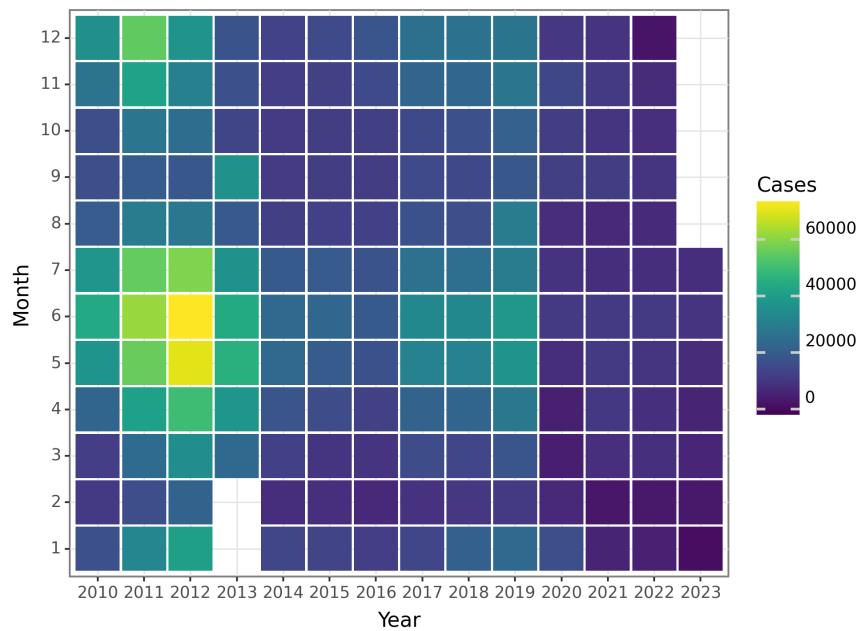


Figure 111: The Change of Mumps Cases before 2023 June

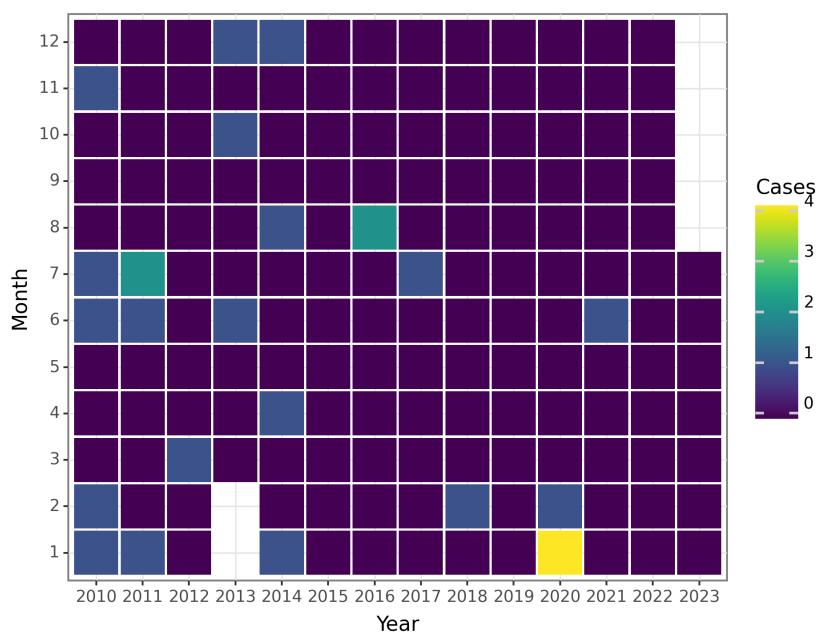


Figure 112: The Change of Mumps Deaths before 2023 June

Rubella

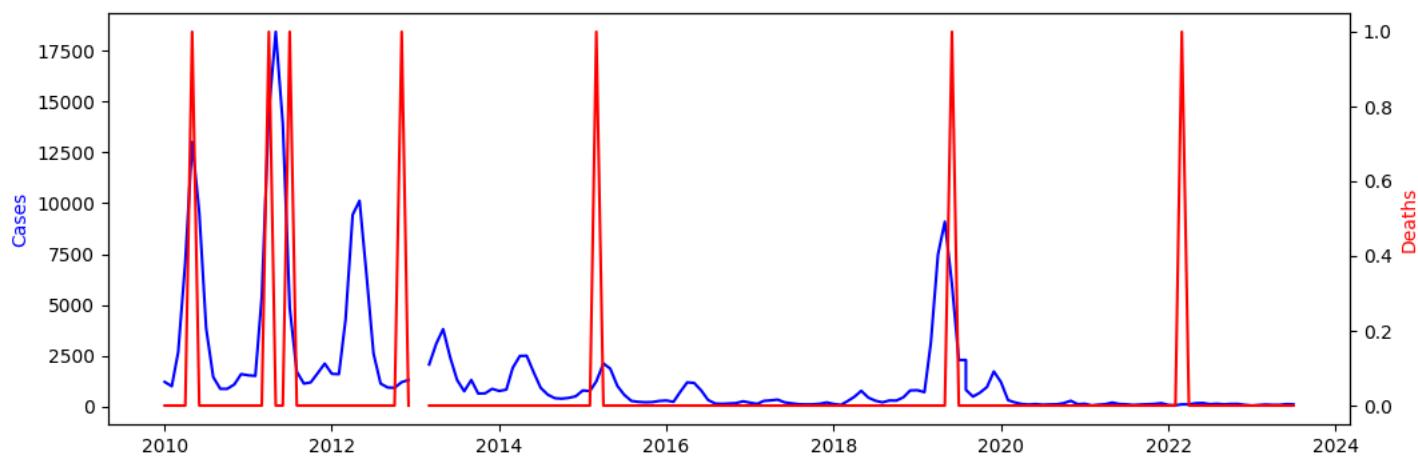


Figure 113: The Change of Rubella Reports before 2023 June

The data provided represents the monthly cases and deaths of Rubella from January 2010 to June 2023. To analyze the data, we can first examine the trends and patterns in the monthly cases.

From January 2010 to June 2010, the number of Rubella cases increased steadily, with a peak of 13,026 cases in May 2010. After June 2010, the number of cases gradually decreased, reaching a low of 863 cases in both September and October 2010. This pattern of fluctuation continued throughout the years, with peaks occurring in certain months and troughs in others.

In general, the number of Rubella cases followed a seasonal pattern, with higher incidence during the summer months (June, July, and August) and relatively lower incidence during the winter months (December, January, and February). This seasonality can be attributed to various factors, such as increased outdoor activities and closer contact among individuals during the summer.

Analyzing the overall trend, there appears to be a decreasing trend in the number of Rubella cases over the years. After the initial peak in 2010, the number of cases gradually declined until reaching a low point in 2016. However, there was a slight increase in cases from 2016 to 2019, peaking at 9,095 cases in May 2019. Since then, the number of cases has been relatively stable, with some fluctuations.

Next, let's turn our attention to the monthly deaths due to Rubella. The data shows that there were no reported deaths from Rubella from January 2010 to May 2010. However, there was one reported death in May 2010, and another reported death in April 2011. Apart from these isolated incidents, there were no other recorded deaths throughout the entire data period.

It is important to note that the number of deaths due to Rubella is generally low compared to the number of cases. Rubella is typically a mild illness, but it can cause serious complications, especially in pregnant women and their unborn babies. The low number of deaths in the dataset suggests that effective prevention measures, such as vaccination programs, have been successful in reducing the mortality associated with Rubella.

In conclusion, the data on Rubella cases exhibits a seasonal pattern, with higher incidence during the summer months and lower incidence during the winter months. There is an overall decreasing trend in the number of cases over the years, with some fluctuations. The number of deaths due to Rubella is relatively low, indicating the effectiveness of prevention measures.

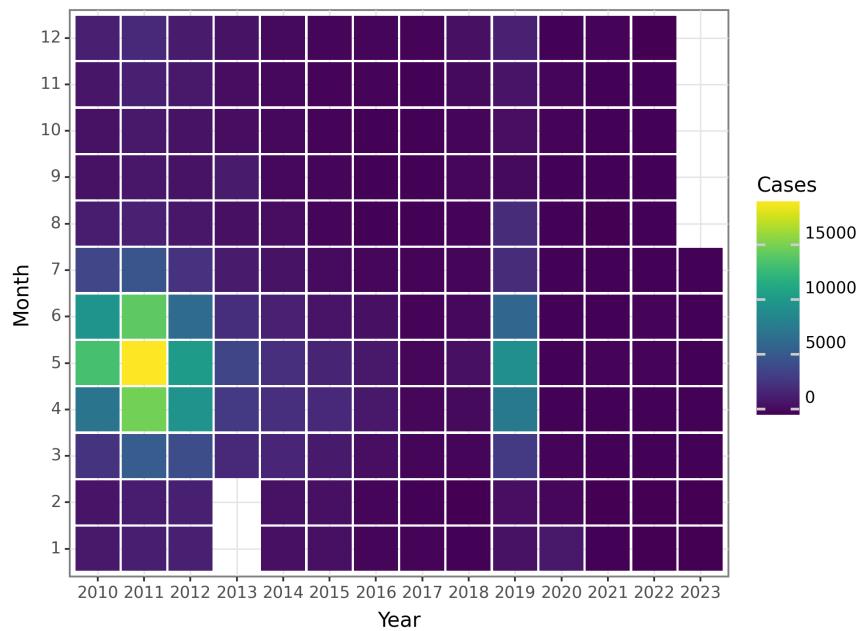


Figure 114: The Change of Rubella Cases before 2023 June

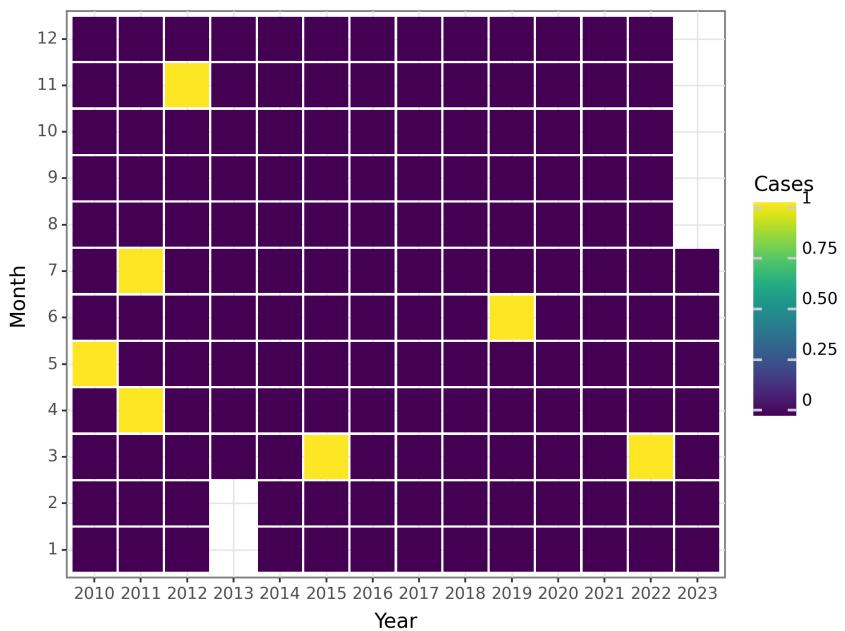


Figure 115: The Change of Rubella Deaths before 2023 June

Acute hemorrhagic conjunctivitis

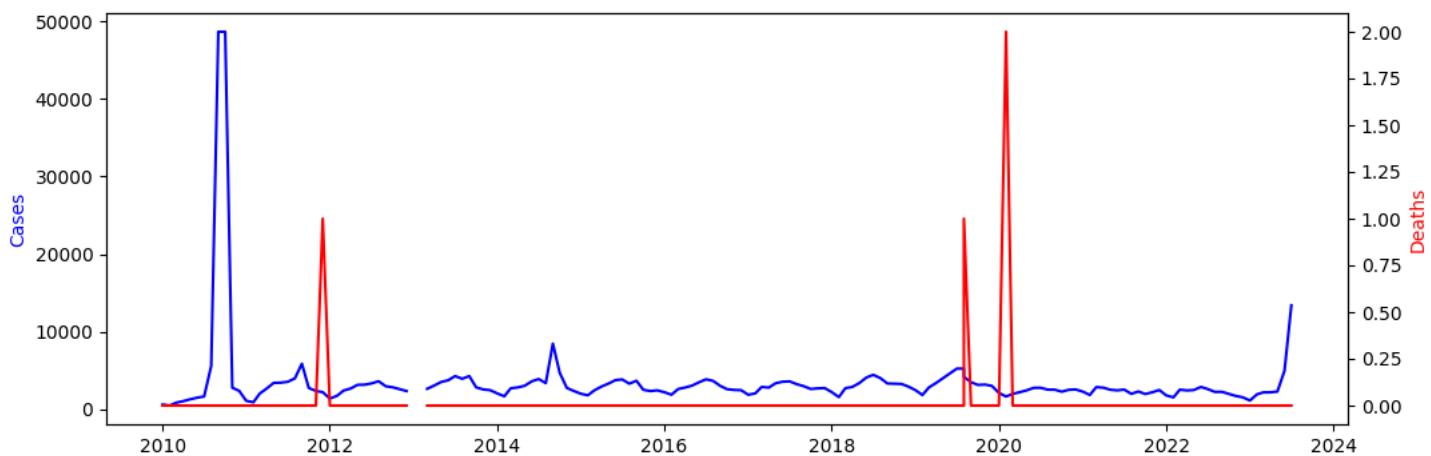


Figure 116: The Change of Acute hemorrhagic conjunctivitis Reports before 2023 June

The data provided represents the monthly cases and deaths of Acute Hemorrhagic Conjunctivitis (AHC) from January 2010 to June 2023. AHC is a highly contagious viral infection that affects the conjunctiva, the thin layer covering the white part of the eye. It is characterized by symptoms such as redness, swelling, and discharge from the eyes.

Analyzing the time series data, we can observe certain patterns and trends in the monthly incidence and death rates of AHC.

Firstly, looking at the monthly cases, we notice some seasonal variations. The number of cases tends to be relatively low in the beginning of the year, gradually increasing in the months of March, April, and May, and reaching a peak in June. This pattern is consistent across multiple years, indicating a possible seasonal trend in the occurrence of AHC. However, it's worth noting that the incidence in June 2023 is significantly higher compared to previous years, with a sudden spike to 4985 cases. This could be indicative of an outbreak or a surge in AHC cases during that particular month.

In terms of deaths, the data shows a relatively low number of fatalities throughout the entire period. There are no reported deaths in the majority of months, suggesting that AHC is generally a non-fatal condition. However, there is a single death reported in December 2010 and two deaths reported in February 2020. These isolated incidents could be attributed to individual complications or underlying health conditions of the affected individuals rather than AHC itself.

It is important to note that the data includes some negative values for cases and deaths in certain months. Negative values are likely due to data recording errors or discrepancies. As such, it is essential to verify and rectify these inconsistencies before further analysis or interpretation.

In conclusion, the data on monthly cases and deaths of AHC from January 2010 to June 2023 reveals a seasonal pattern in the incidence of the disease, with the highest number of cases occurring in June.

However, the overall number of deaths associated with AHC is relatively low, indicating that it is generally a non-fatal condition. Further investigation and analysis are required to identify the specific factors contributing to the observed patterns and to better understand the epidemiology of AHC.

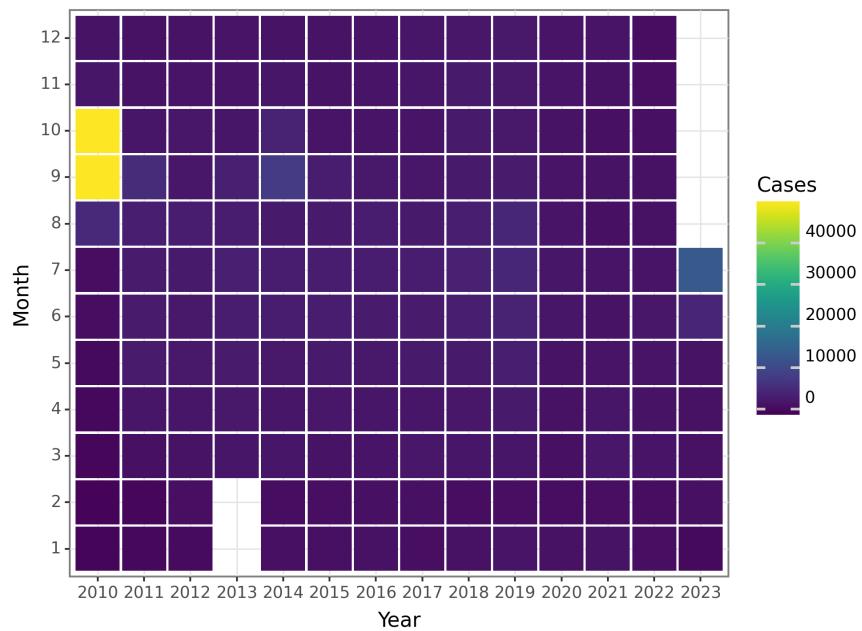


Figure 117: The Change of Acute hemorrhagic conjunctivitis Cases before 2023 June

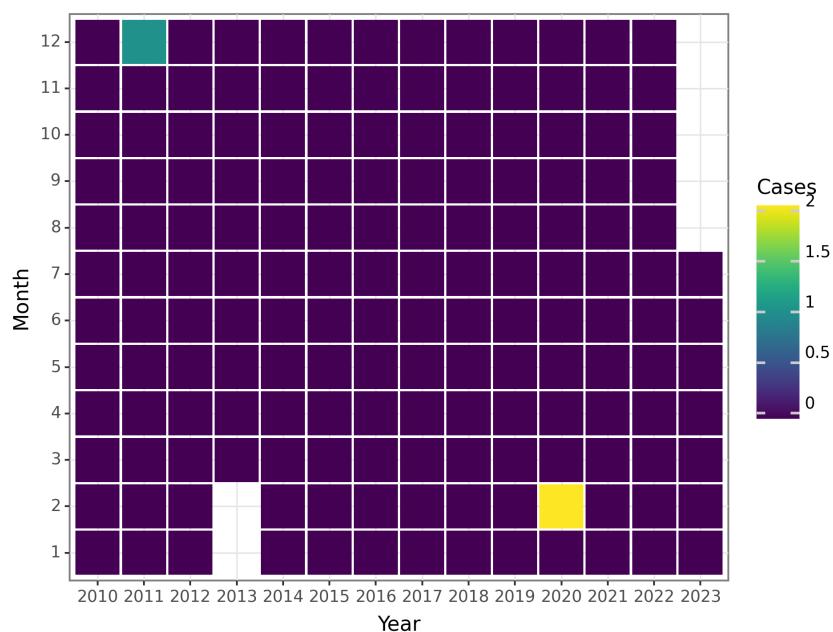


Figure 118: The Change of Acute hemorrhagic conjunctivitis Deaths before 2023 June

Leprosy

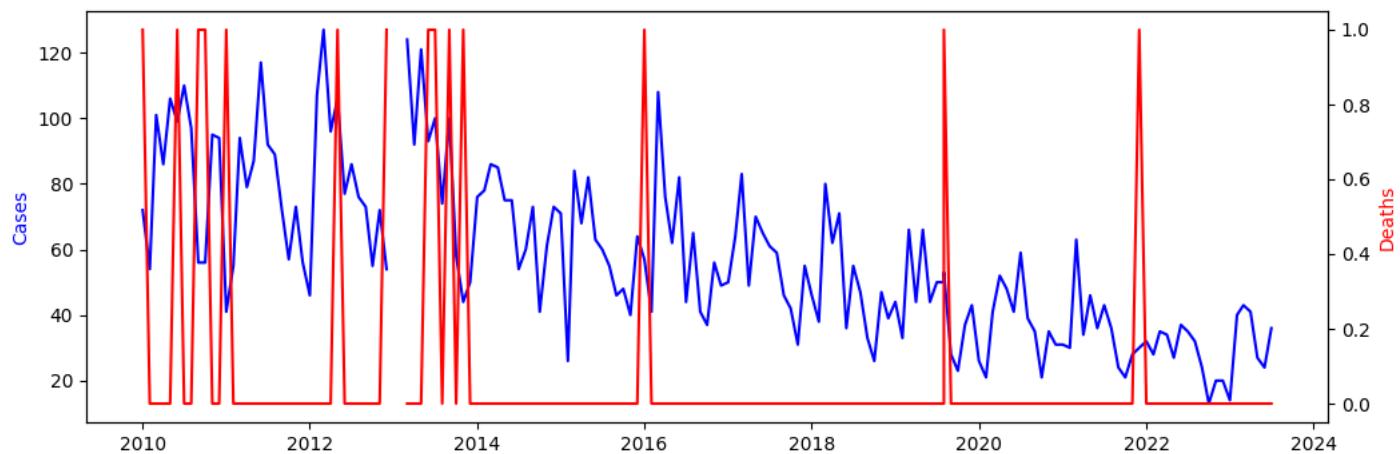


Figure 119: The Change of Leprosy Reports before 2023 June

The provided data represents the monthly incidence and death cases of leprosy from January 2010 to June 2023. In this discussion, we will analyze the trends and patterns observed in the data.

Overall, the number of leprosy cases fluctuated over the years, with some periods showing an increase in cases while others showed a decrease. Let's analyze the data in more detail.

From January 2010 to June 2011, the number of cases varied, with a peak of 117 cases in June 2011. This was followed by a decrease in cases until March 2012, where the number of cases reached a low of 77. After that, the number of cases remained relatively stable, ranging from 55 to 127 cases per month until June 2013.

In the first half of 2013, there seems to be a data anomaly, with negative values recorded for the number of cases and deaths. This could be due to data entry errors or other factors, and should be further investigated and addressed in future analysis.

From June 2013 onwards, the number of cases increased steadily until reaching a peak of 124 cases in March 2013. This peak was followed by a gradual decline in cases, with some fluctuations, until June 2023, where the number of cases reached a low of 24.

When looking at the monthly deaths due to leprosy, the data shows a relatively low number of deaths throughout the entire period. In fact, the majority of months recorded zero deaths, indicating that leprosy is not a highly fatal disease. However, there were a few months where deaths were recorded, with a peak of 1 death in some months.

It is important to note that the data provided is for a specific period and location, and further analysis is required to understand the factors influencing the incidence and death rates of leprosy. Factors such as public health interventions, access to healthcare, and socio-economic conditions could all contribute to the observed trends.

In conclusion, the data on leprosy cases and deaths from January 2010 to June 2023 shows fluctuations in the number of cases, with some periods of increase followed by periods of decrease. The number of deaths due to leprosy is relatively low, with most months recording zero deaths. Further analysis is needed to understand the underlying factors influencing these trends and to develop appropriate public health strategies to control and prevent leprosy.

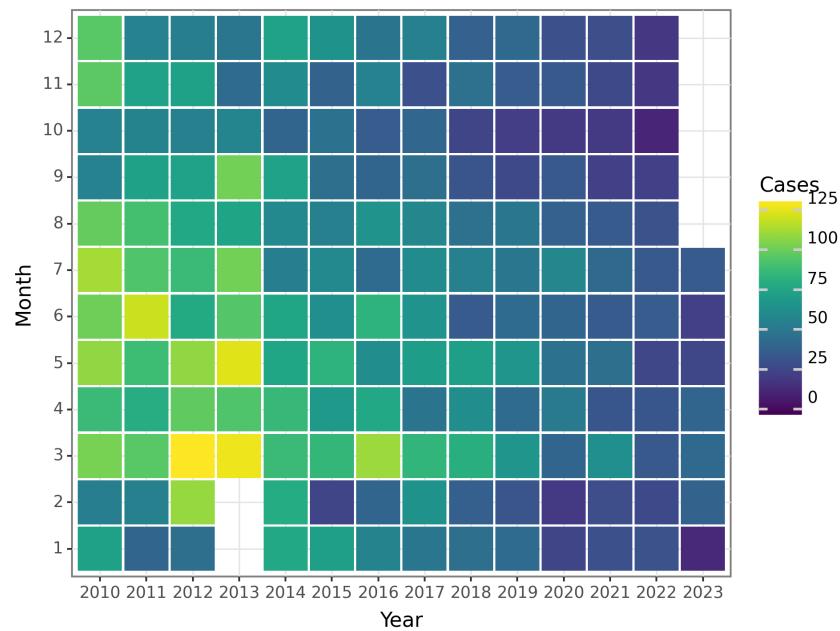


Figure 120: The Change of Leprosy Cases before 2023 June

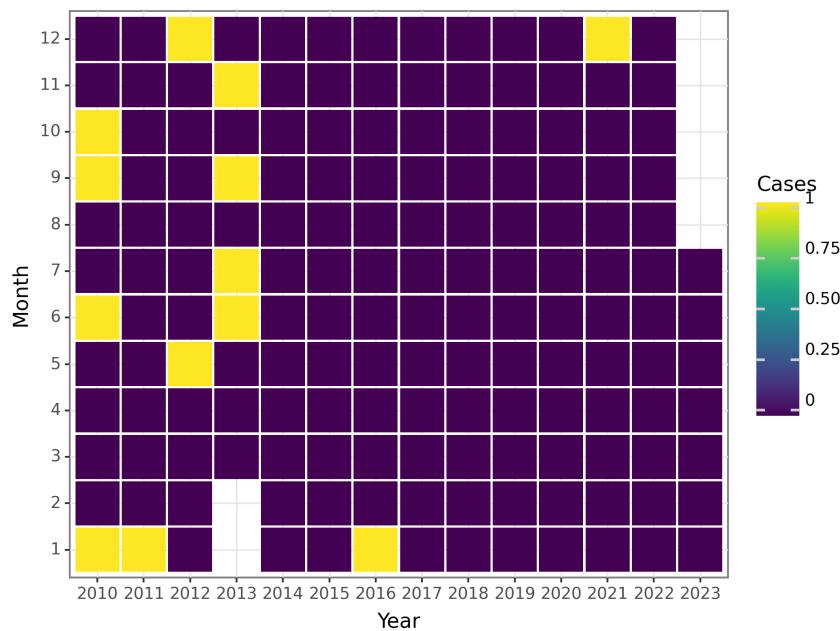


Figure 121: The Change of Leprosy Deaths before 2023 June

Typhus

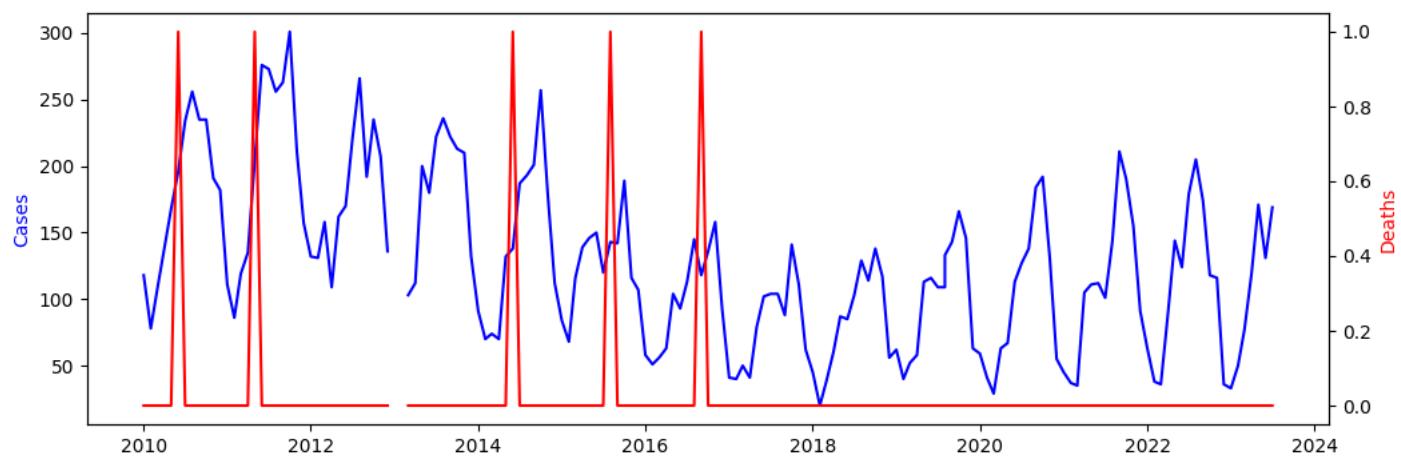


Figure 122: The Change of Typhus Reports before 2023 June

Thank you for providing the data on monthly cases and deaths for Typhus from 2010 to 2023. By analyzing the time series data, we can observe seasonal and cyclical patterns in the incidence of Typhus.

From the data, we can see that the number of Typhus cases has fluctuated over the years, with a peak in 2011 of 301 cases and a low in 2013 of -10 cases. There is a clear seasonal pattern, with higher numbers of cases typically occurring during the summer months (June to August) and lower numbers during the winter months (December to February).

In terms of the cyclical pattern, we can observe a general upward trend in the number of cases from 2010 to 2011, followed by a gradual decrease until 2015. After that, there is a slight increase again until 2017, followed by a relatively stable period until 2021. From 2021 to 2023, there is a slight increase again in the number of cases.

The number of deaths due to Typhus is generally low, with only a total of 2 deaths recorded over the entire time period. The deaths occurred in June 2010 and August 2015.

In conclusion, the data shows a clear seasonal and cyclical pattern in the incidence of Typhus. The fluctuations in the number of cases over the years may be attributed to various factors such as changes in population density, weather conditions, and public health interventions. The low number of deaths due to Typhus is a positive indication of effective prevention and treatment measures.

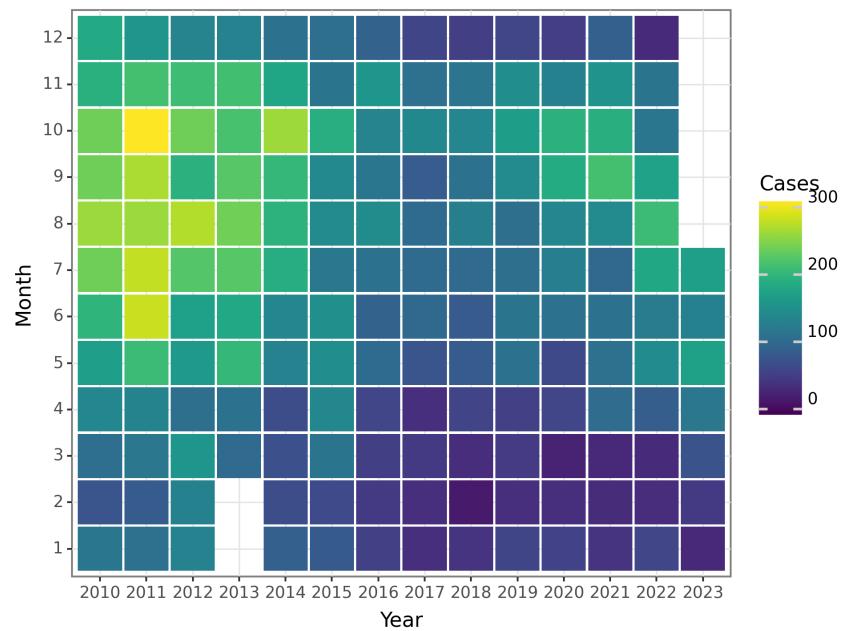


Figure 123: The Change of Typhus Cases before 2023 June

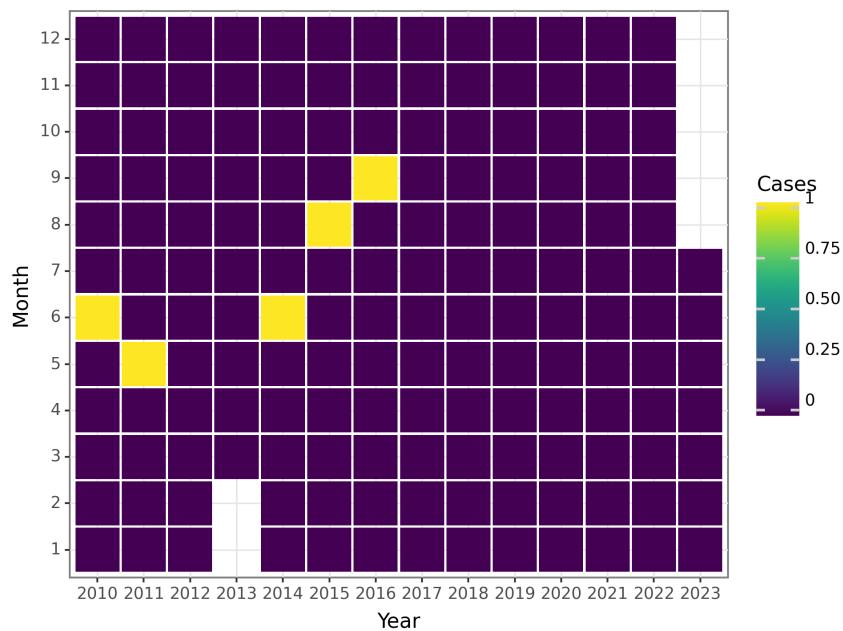


Figure 124: The Change of Typhus Deaths before 2023 June

Kala azar

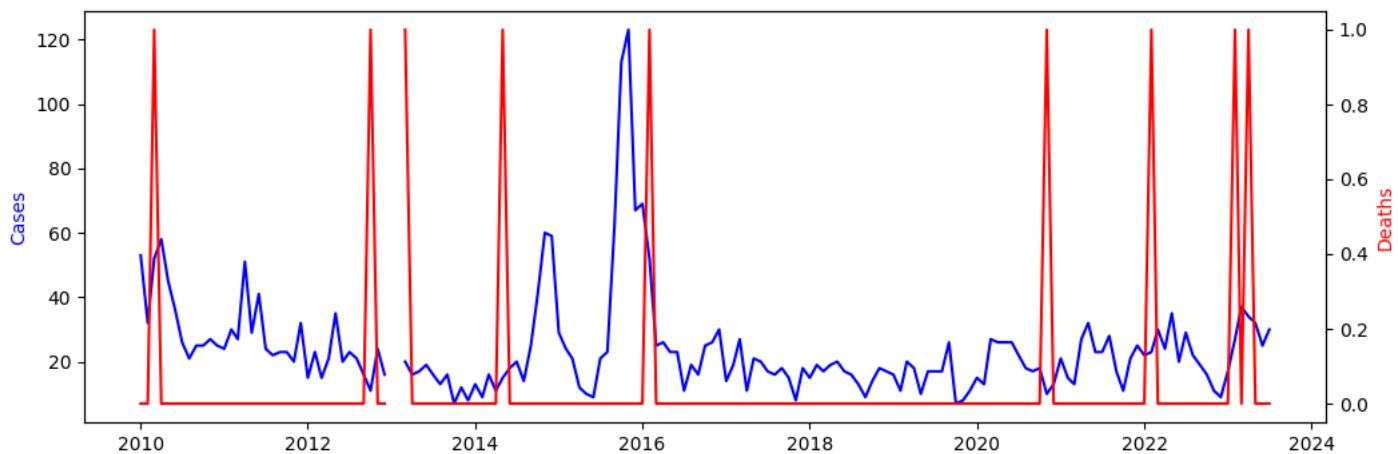


Figure 125: The Change of Kala azar Reports before 2023 June

Based on the provided data, we can observe the monthly incidence and death cases for Kala azar (Visceral Leishmaniasis) from January 2010 to June 2023.

The monthly incidence shows the number of reported Kala azar cases per month, while the monthly deaths indicate the number of deaths attributed to Kala azar during the same period.

Analyzing the monthly incidence data, we can identify certain patterns and trends. From 2010 to 2013, there appears to be a fluctuating pattern with some months having higher case counts and others having lower counts. However, it is important to note that there are some negative values recorded in the data for certain months in 2013 and 2014. These negative values may indicate data recording errors or inconsistencies and should be further investigated.

From 2014 to 2017, there seems to be a relatively stable period with a consistent number of reported cases each month, ranging from around 10 to 30 cases. However, in 2018, there is a slight increase in the number of cases reported, with some months reaching up to 40 cases.

In 2019, there is a significant increase in the number of reported cases, with the monthly counts ranging from around 10 to 60 cases. This upward trend continues into 2020, where the monthly case counts remain relatively high, reaching up to 113 cases in October 2019.

In 2021, there is a slight decrease in the number of reported cases compared to the previous year, but the counts remain relatively high, ranging from around 10 to 30 cases per month.

Analyzing the monthly death data, we can observe that the number of deaths attributed to Kala azar is generally low throughout the years, with most months reporting zero deaths. However, there are some months where one or two deaths are reported.

It is important to note that the provided data only covers the period up to June 2023, and further analysis and monitoring would be required to assess any potential changes or trends beyond this time frame.

Overall, these findings indicate the presence of Kala azar cases in the studied population, with some fluctuations and variations in the number of reported cases over time. It is essential to continue monitoring and implementing appropriate control measures to reduce the incidence and impact of Kala azar in the affected population.

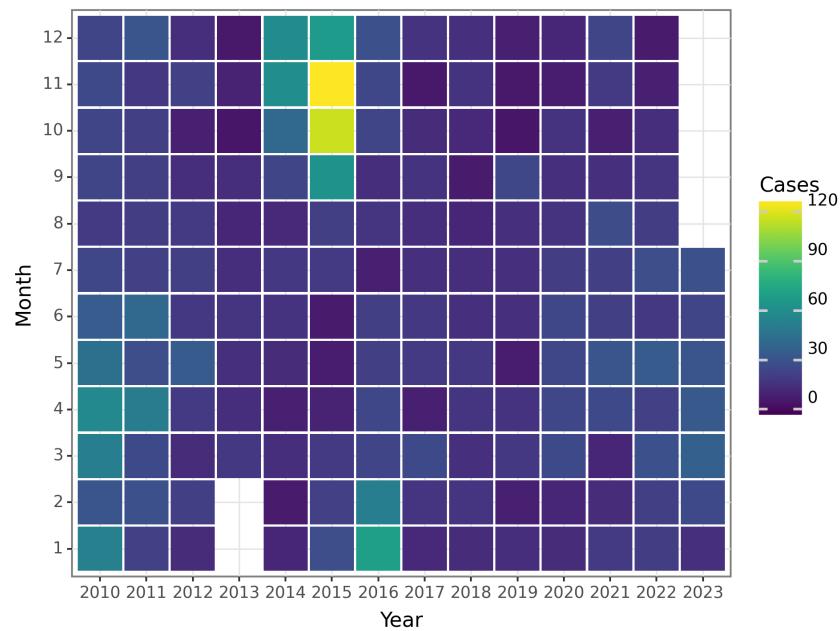


Figure 126: The Change of Kala azar Cases before 2023 June

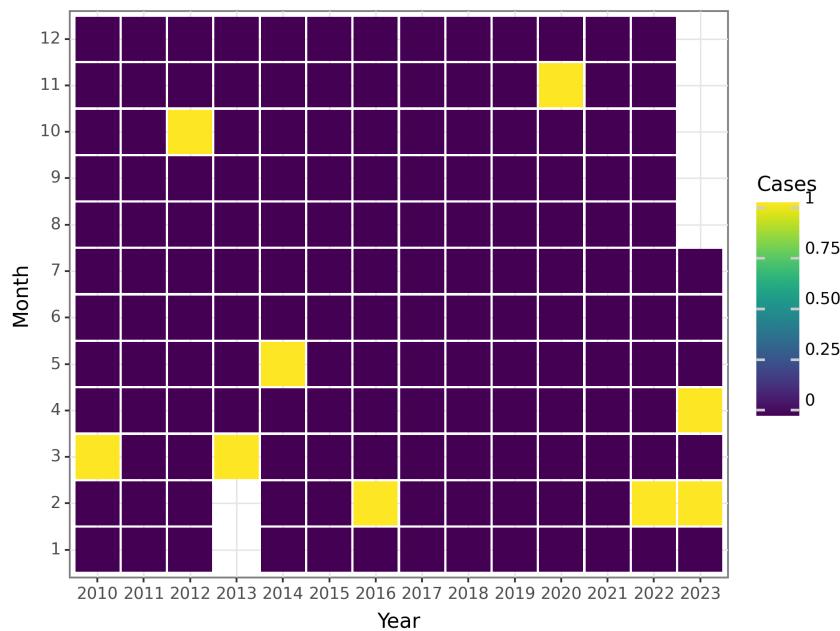


Figure 127: The Change of Kala azar Deaths before 2023 June

Echinococcosis

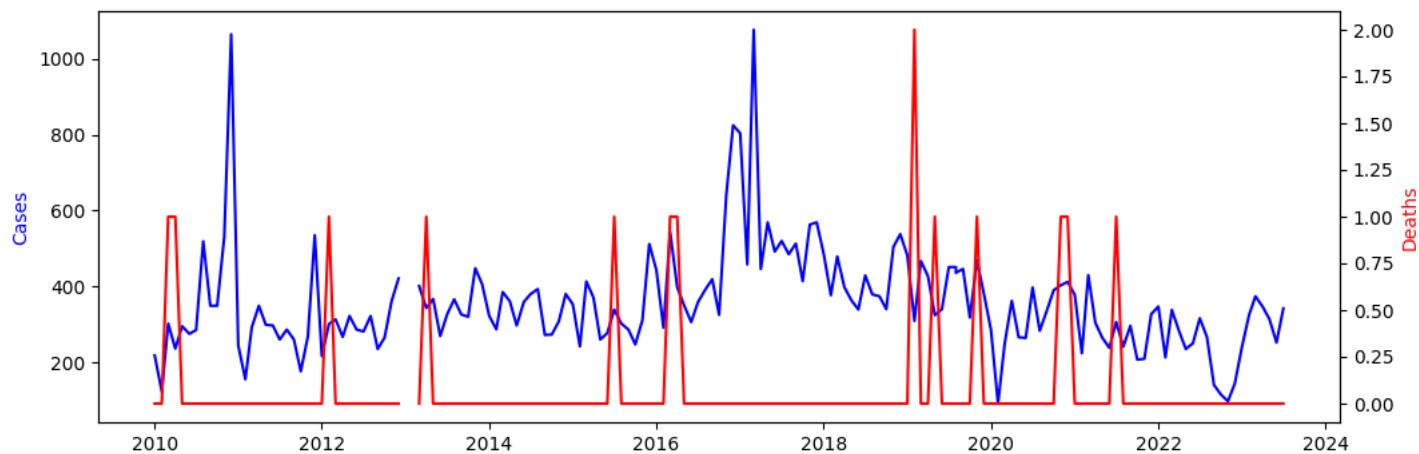


Figure 128: The Change of Echinococcosis Reports before 2023 June

The data provided includes monthly cases and deaths of Echinococcosis from January 2010 to June 2023. The number of cases fluctuated throughout the years, with some months showing higher numbers while others had lower numbers.

From a seasonal perspective, there doesn't appear to be a clear pattern. However, there are a few observations that can be made. In some years, such as 2010 and 2013, there were higher case numbers during the months of March and April. In other years, such as 2011 and 2015, the peak occurred in November or December. Additionally, there is a general trend of higher case numbers during the summer months (June to August) in some years, like 2010 and 2017.

Regarding deaths, the data shows relatively low numbers throughout the years, with most months reporting zero deaths. However, there are a few months that stand out, such as February 2012, April 2013, July 2015, November 2020, and July 2021, where there were one or two reported deaths.

It is important to note that the negative values for cases and deaths in some months, such as January and February 2013, indicate data entry errors or inconsistencies and should be addressed.

Overall, the data suggests that the incidence of Echinococcosis fluctuates throughout the years with some variations in peak months. However, further analysis and investigation are required to identify any underlying patterns or factors contributing to the observed trends.

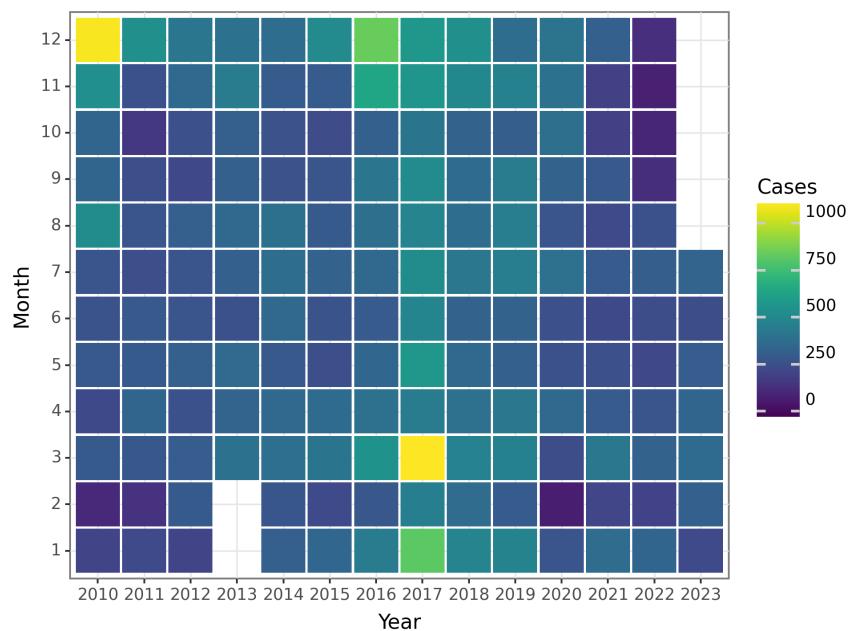


Figure 129: The Change of Echinococcosis Cases before 2023 June

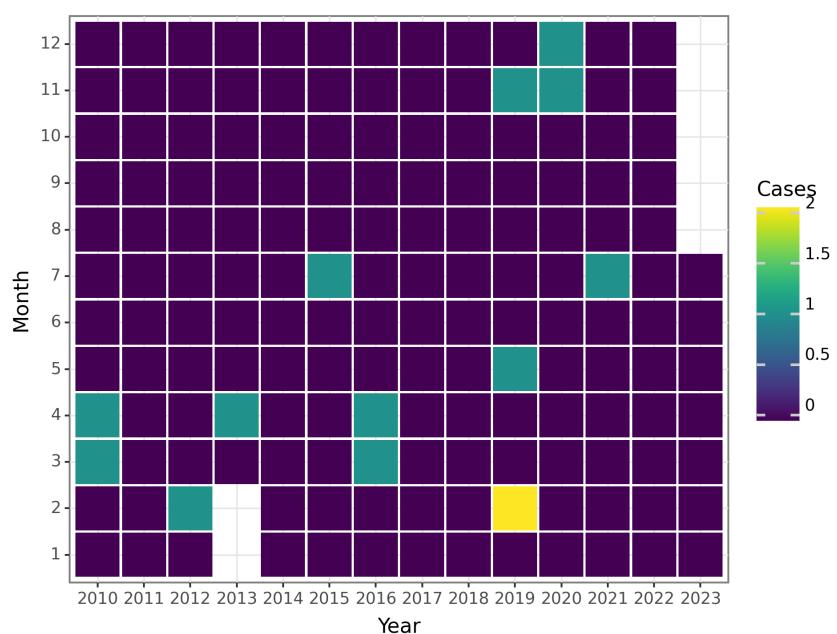


Figure 130: The Change of Echinococcosis Deaths before 2023 June

Filariasis

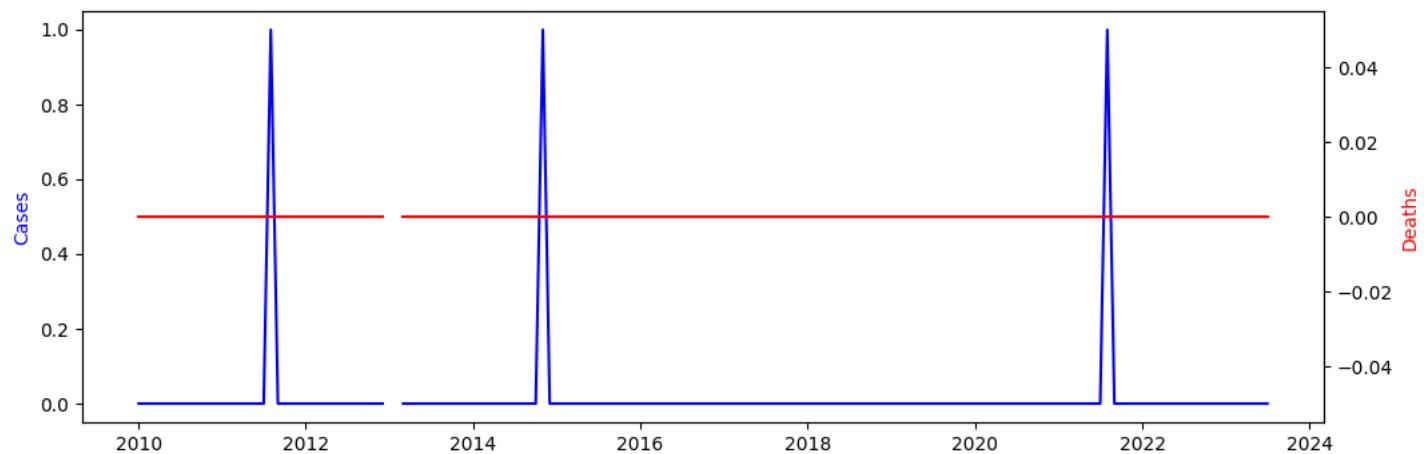


Figure 131: The Change of Filariasis Reports before 2023 June

Based on the data provided, there have been no reported cases or deaths of Filariasis from January 2010 to June 2023. The data is consistent with the knowledge that Filariasis is not endemic in many parts of the world, including developed countries. However, it is important to continue monitoring the disease and its transmission, especially in areas where it is endemic, to prevent its spread and ensure early detection and treatment. The negative values in the data for January and February of 2013 suggest a data entry error or other issue, which would need to be addressed before further analysis.

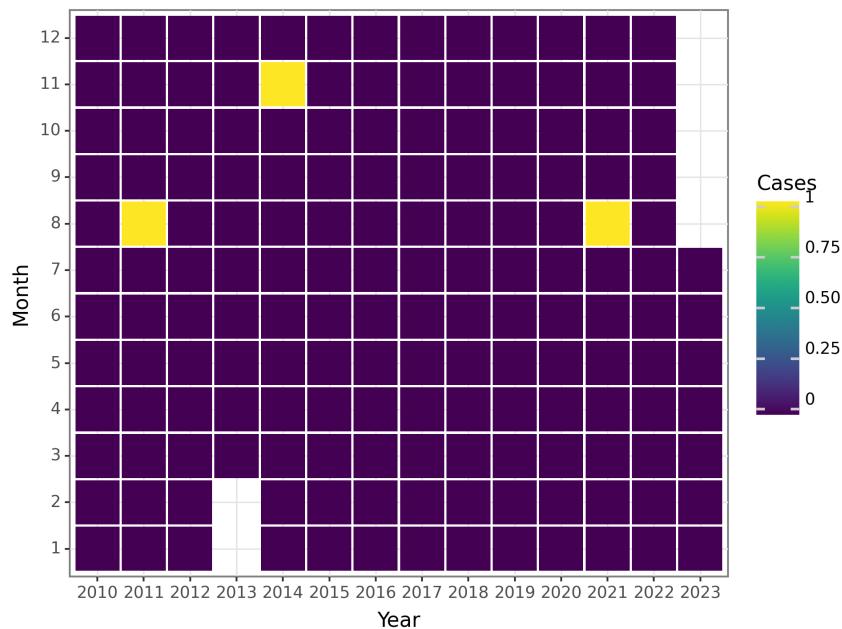


Figure 132: The Change of Filariasis Cases before 2023 June

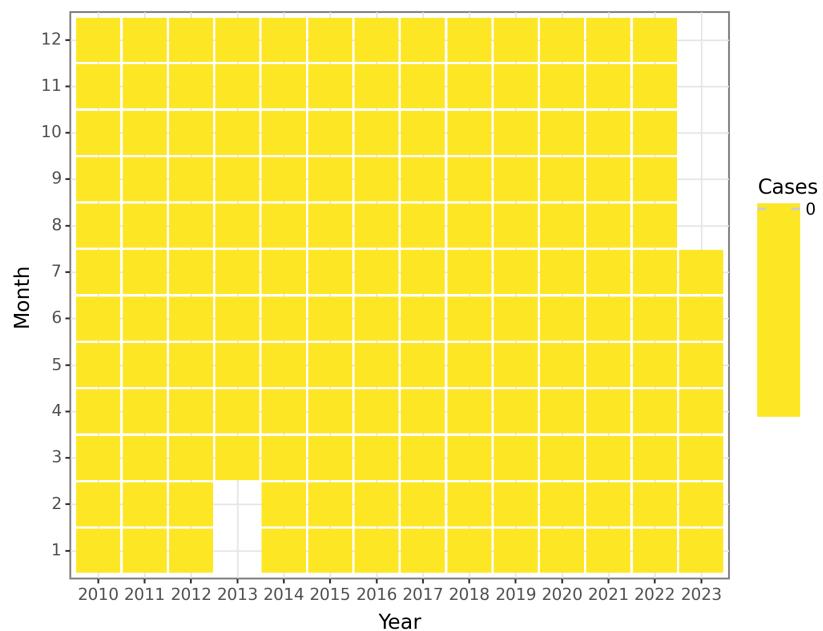


Figure 133: The Change of Filariasis Deaths before 2023 June

Infectious diarrhea

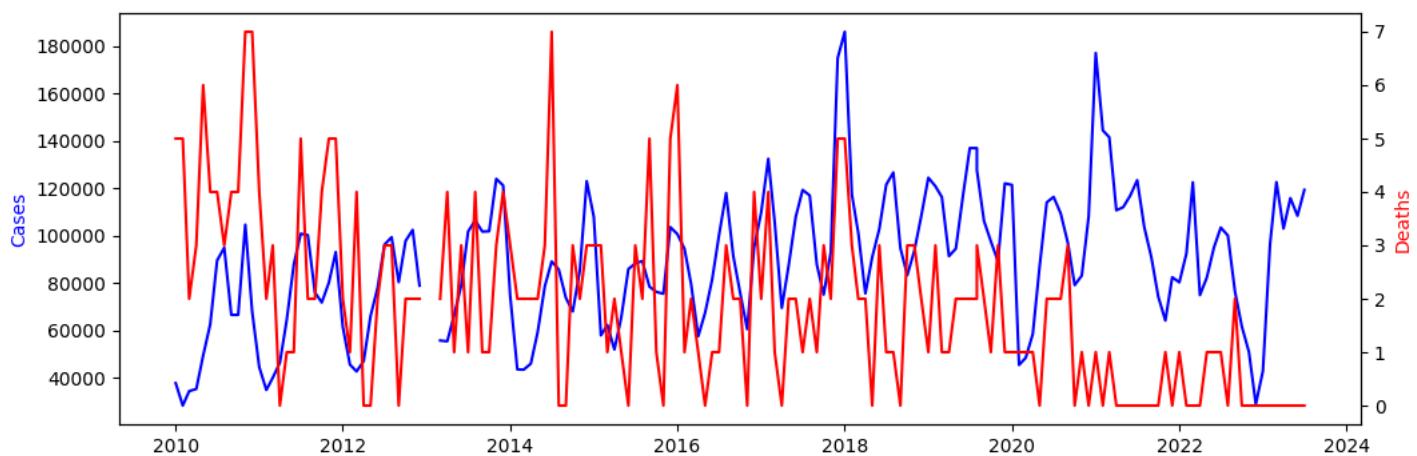


Figure 134: The Change of Infectious diarrhea Reports before 2023 June

The provided data represents the monthly cases and deaths of infectious diarrhea from January 2010 to June 2023. Analyzing the time series data allows us to identify any patterns, trends, or seasonal variations in the incidence and mortality of this disease.

Looking at the monthly cases, it is evident that there is considerable variation throughout the years. For instance, the number of cases in June 2010 was 62,730, which gradually increased over the years, reaching its peak in January 2018 with 186,071 cases. After that, the number of cases fluctuated, with a gradual decline until reaching 108,442 cases in June 2023.

Analyzing the monthly deaths, it is important to note that the number of deaths associated with infectious diarrhea is relatively low compared to the number of cases. However, it is crucial to consider the severity and impact of these deaths on public health.

When comparing the cases and deaths, it is observed that the number of deaths generally follows the trend of cases, but at a much lower magnitude. This indicates that while the incidence of infectious diarrhea may be high in certain months, the mortality rate remains relatively low.

Seasonal patterns in infectious diarrhea can also be observed when examining the data. For example, there is a consistent increase in cases during the summer months (June, July, and August) in most years. This could be attributed to factors such as increased travel, higher temperatures, and changes in food consumption patterns during this time.

It is important to note that there were some missing or erroneous data points, indicated by negative values or zeros for certain months. These discrepancies should be addressed and corrected to ensure the accuracy of the analysis.

In conclusion, the time series analysis of the monthly cases and deaths of infectious diarrhea provides valuable insights into the patterns and trends of this disease. Further analysis and investigation are necessary to understand the underlying factors contributing to the observed variations and to develop effective prevention and control strategies.

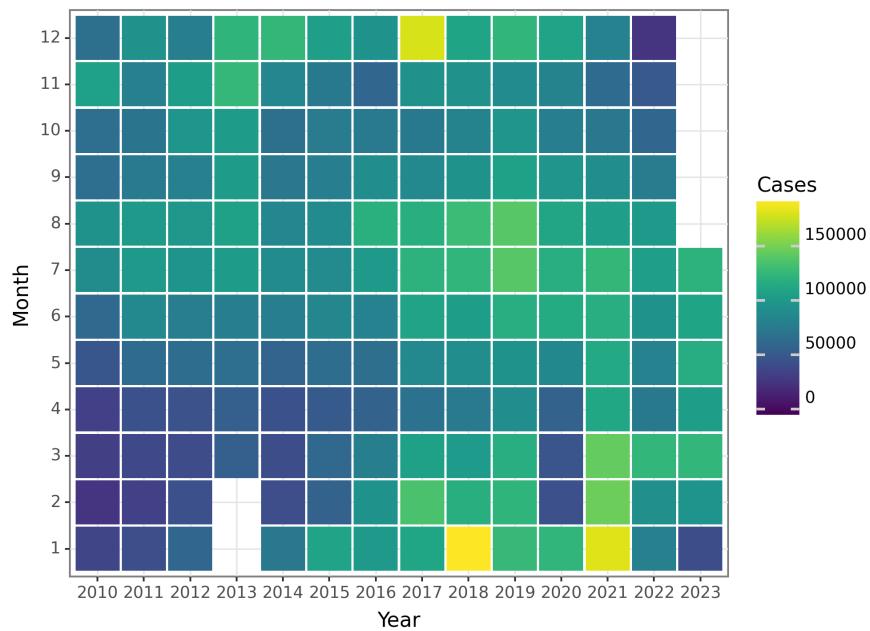


Figure 135: The Change of Infectious diarrhea Cases before 2023 June

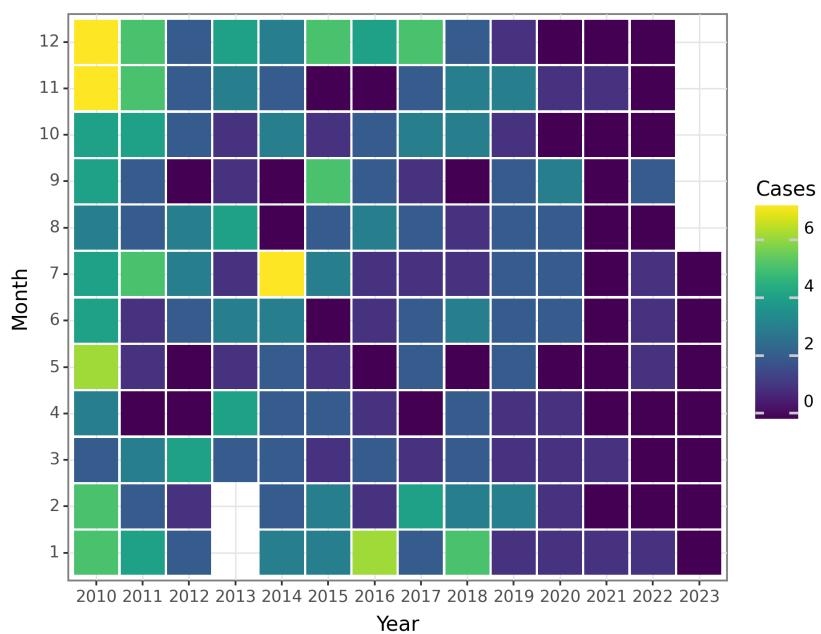


Figure 136: The Change of Infectious diarrhea Deaths before 2023 June

Hand foot and mouth disease

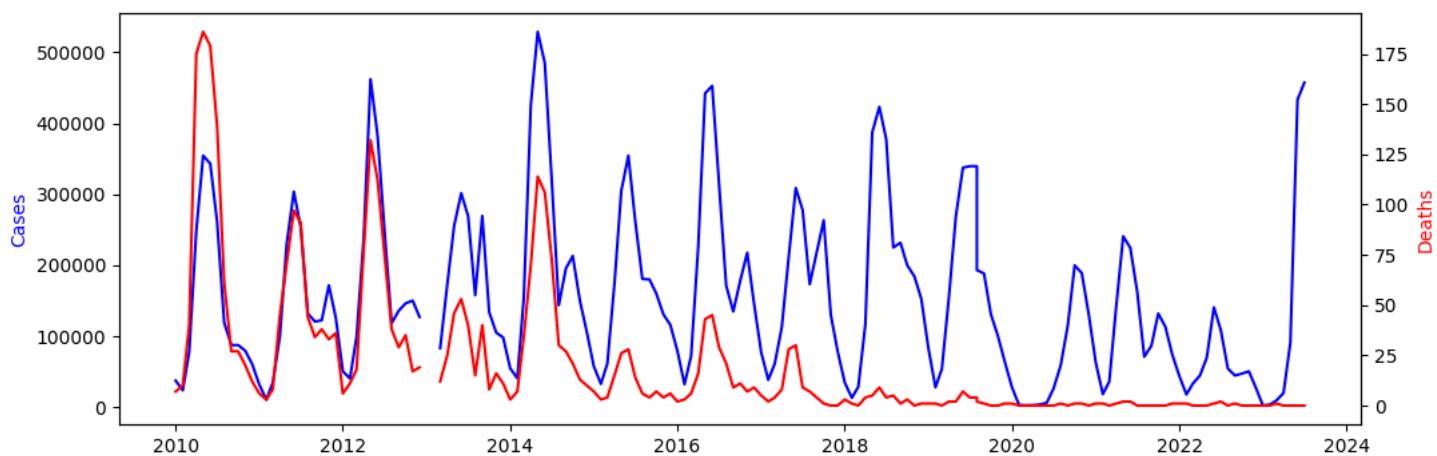


Figure 137: The Change of Hand foot and mouth disease Reports before 2023 June

The provided data represents the monthly cases and deaths of Hand, Foot, and Mouth Disease (HFMD) from January 2010 to June 2023. The main aim of this discussion is to analyze the trends and patterns in the incidence and mortality rates of HFMD over time.

First, let's focus on the monthly cases of HFMD. From 2010 to 2013, there is a clear increasing trend in the number of cases. The highest number of cases was recorded in May 2013, with a total of 301,416 cases. Following this peak, there is a gradual decline in the number of cases until 2016. However, starting from 2016, the number of cases begins to rise again, with the highest number of cases occurring in June 2023, reaching a staggering 433,084 cases.

It is important to note that HFMD is known to have seasonal patterns, with higher incidence rates observed during warmer months. This seasonal variation is evident in the data, with higher numbers of cases reported during the summer months of June, July, and August in most years. This pattern suggests that HFMD outbreaks are more likely to occur during the summer season.

Next, let's examine the monthly deaths associated with HFMD. The number of deaths due to HFMD is relatively low compared to the number of cases. From 2010 to 2016, the number of deaths remains relatively stable, with occasional fluctuations. However, starting from 2017, there is a notable decrease in the number of deaths. The lowest number of deaths is recorded in 2020 and 2021 when no deaths were reported. This decline in mortality can be attributed to improved healthcare practices, early detection, and effective treatment strategies.

Overall, the data indicates that HFMD is a disease with significant seasonal variation, with higher incidence rates observed during the summer months. It is important for public health authorities to be vigilant during these periods and implement appropriate preventive measures to control the spread of HFMD.

Additionally, the declining mortality rates highlight the effectiveness of healthcare interventions in reducing the severity and complications associated with HFMD.

However, it is crucial to interpret these findings with caution as there may be limitations in the data collection and reporting process. Factors such as variations in reporting practices, changes in diagnostic criteria, and regional differences may affect the accuracy and comparability of the data. Further research and analysis are needed to provide a more comprehensive understanding of HFMD epidemiology and to inform public health interventions.

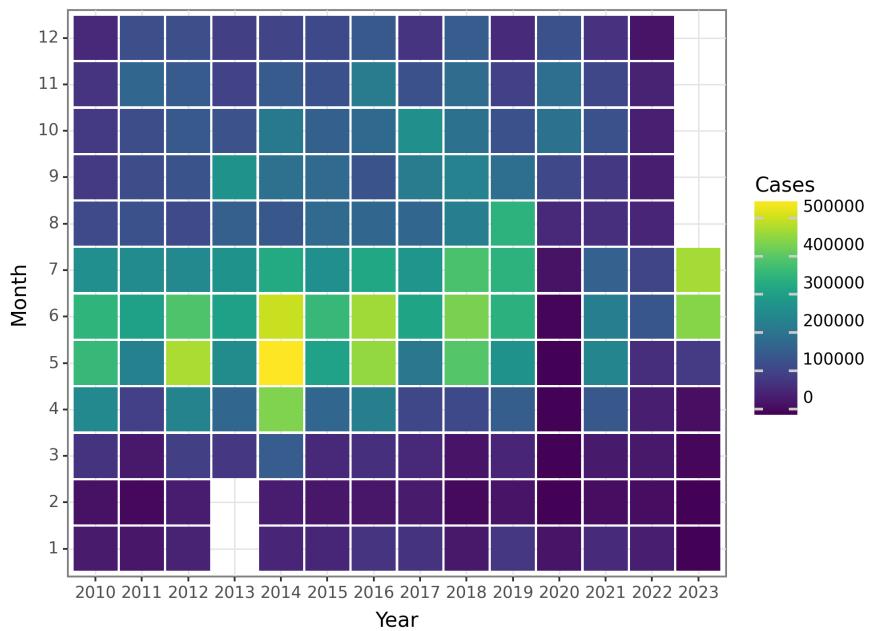


Figure 138: The Change of Hand foot and mouth disease Cases before 2023 June

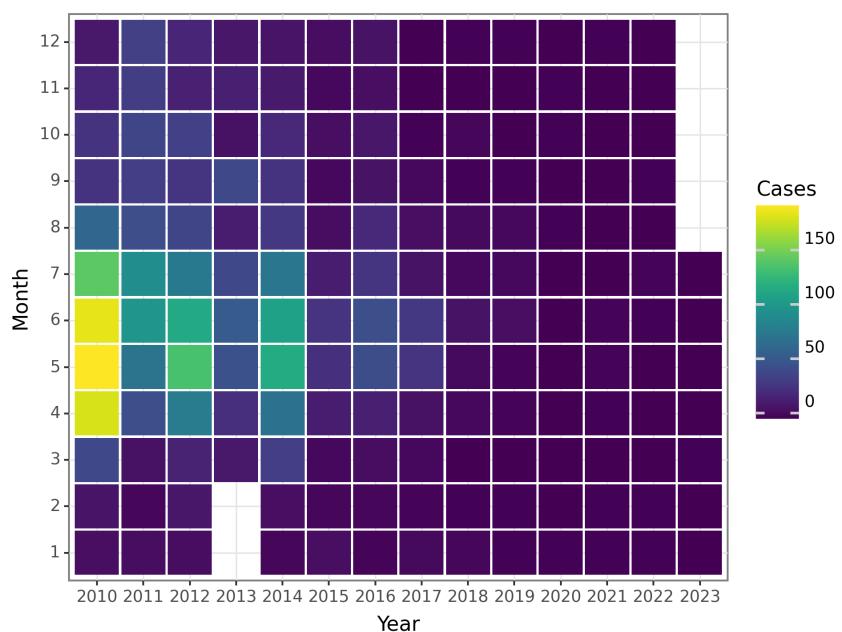


Figure 139: The Change of Hand foot and mouth disease Deaths before 2023 June