Epidemiology of Laboratory investigations for Mumps in South Africa

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# Introduction and Background

Mumps is an acute viral infection caused by the rubulavirus, also known as mumps virus Mumps is a vaccine-preventable disease that usually . It is not a notifiable disease in South Africa nor is it covered by the country’s Expanded Programme on Immunisations (EPI). If a country does not attain a high vaccination (>80%) for Mumps, the vaccine programme may be harmful since infections occur later (in older age groups) and disease severity usually increases with increasing age. The NICD confirmed the presence of an outbreak of Mumps in SA on 11 May 2023.

# Objectives

1. To Describe Laboratory Confirmed Cases of Mumps in South Africa by Person Place and Time
2. To give an overview of Confirmed Cases of Mumps in Provinces in South Africa by Person Place and Time

# Methods

Data was extracted from the NHLS central Data Warehouse (CDW) on 22 May 2023. Test data after March 2023 is incomplete due to delays in specimen testing and authorisation. Data wrangling and analysis is conducted using Rstudio. Data is grouped by person so that repeat PCR, IgM or IgG tests are not re-counted. Proportions are calcualted as person testing, not by individual test. Frequency and proportion, and Median and Interquartile Range is used to describe categorical and continuous variables respectively. Descriptive statistics and Epidemiological curves are presented.

## Case Definition

### Laboratory Confirmed

The working case definition for laboratory confirmed mumps case is any person with a positive lab test result for mumps IgM or PCR positive for mumps”

### Immunity

The working case definition for mumps immunity is any person with mumps IgG positive laboratory serology test results

# Results

## South Africa

### Descriptive Statistics

**Table 1:**

| **Characteristic** | **N = 5821** |
| --- | --- |
| gender |  |
| Female | 282 (48%) |
| Male | 278 (48%) |
| Unknown | 22 (3.8%) |
| age\_in\_years | 6.0 (4.0, 8.0) |
| age\_group |  |
| <1 year | 17 (2.9%) |
| 1-4 years | 158 (27%) |
| 5-9 years | 335 (58%) |
| 10-14 years | 33 (5.7%) |
| 15-19 years | 13 (2.2%) |
| 20-24 years | 8 (1.4%) |
| 25-29 years | 6 (1.0%) |
| 30-34 years | 5 (0.9%) |
| 35-39 years | 3 (0.5%) |
| ≥40 years | 4 (0.7%) |
| province |  |
| Eastern Cape | 9 (1.5%) |
| Free State | 40 (6.9%) |
| Gauteng | 64 (11%) |
| Kwazulu-Natal | 280 (48%) |
| Limpopo | 11 (1.9%) |
| Mpumalanga | 97 (17%) |
| North West | 57 (9.8%) |
| Northern Cape | 0 (0%) |
| Western Cape | 24 (4.1%) |
| Unknown | 0 (0%) |
| **1n (%); Median (IQR)** | |

**?(caption)**

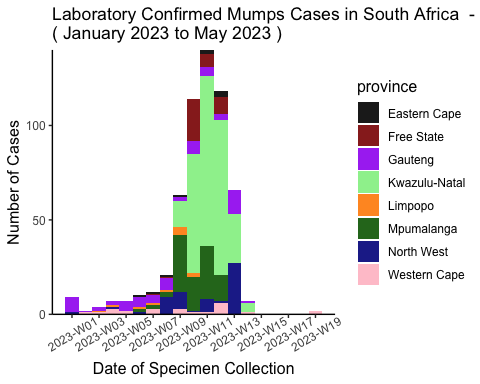
Between NA and NA there were mumps cases 1784. 582 occured in 2023. The Median(IQR) age of mumps cases in 2023 is.

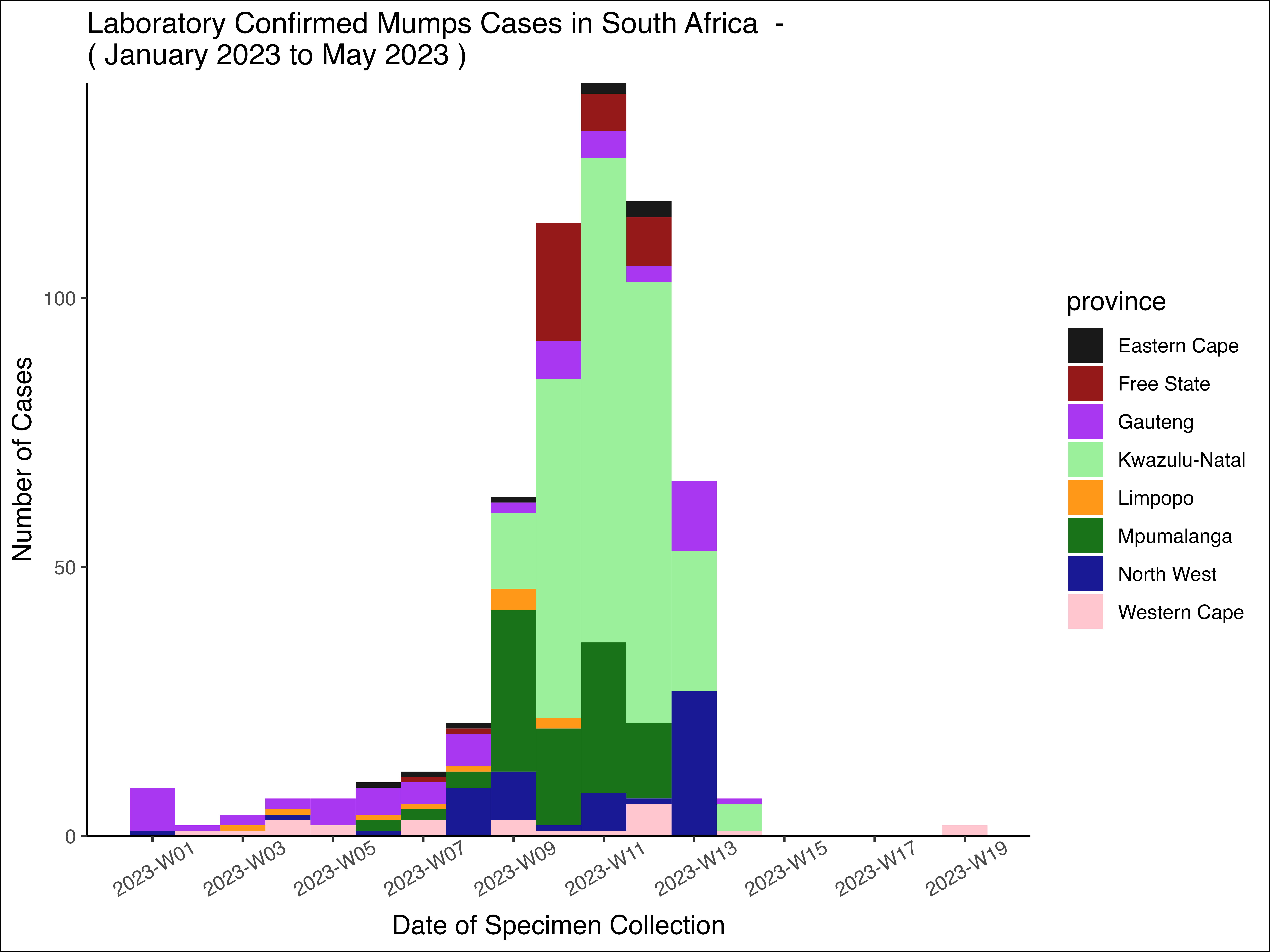
## Epidemic Curve all Cases

## Epidemic Curve 2023 Cases

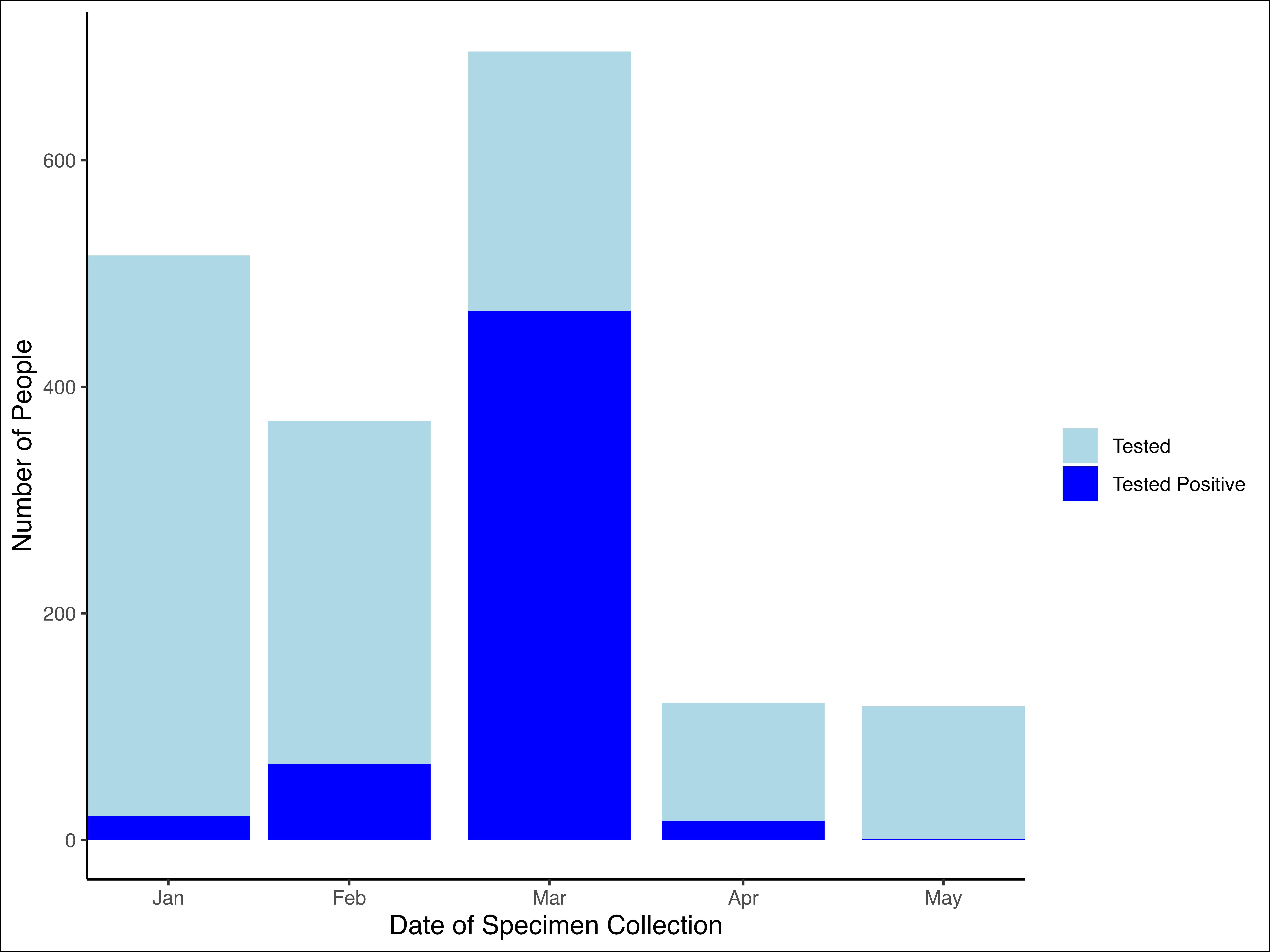
Using more colors (8) than this palette can handle (6); some colors will be interpolated.  
Consider using `muted` palette instead?

Scale for fill is already present.  
Adding another scale for fill, which will replace the existing scale.



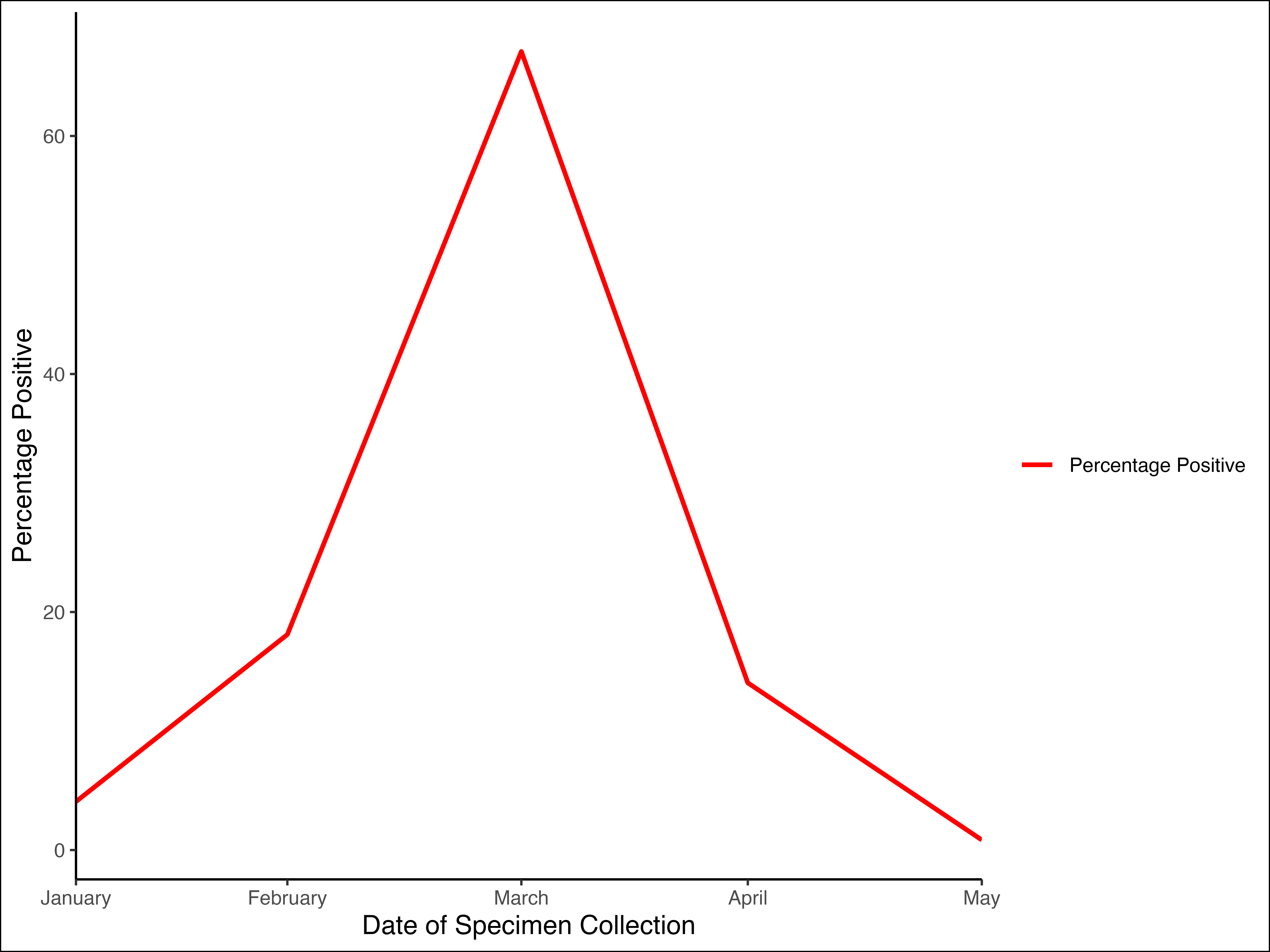


### Number of test



### Proportion Testing Positive

Warning: Using `size` aesthetic for lines was deprecated in ggplot2 3.4.0.  
ℹ Please use `linewidth` instead.



[1] Gauteng Eastern Cape Northern Cape Western Cape Limpopo  
[6] Mpumalanga Kwazulu-Natal Free State North West  
10 Levels: Eastern Cape Free State Gauteng Kwazulu-Natal Limpopo … Unknown # A tibble: 64 × 27 patient\_surname patient\_firstname gender date\_of\_birth age\_in\_years 1 ASSEYAI TSHEPANG Male 1991-06-20 31 2 BHAGA RAM SHIVANT Female 1996-06-08 26 3 BOKABA ONTHATILE Male 1800-01-01 0 4 BRIAGA SHIVANI-CHANTE Female 1996-06-08 26 5 CEBA LESEGO Male 2007-07-15 15 6 CHABALALA ANTHONY Male 2008-04-19 14 7 CHAIMA PATIENCE Female 2002-03-01 21 8 DLAMINI PRINCE Male 2020-02-16 3 9 FENI MTHOKOZISI Male 2017-06-12 5 10 GOGELA KHAYA Male 2019-01-28 4 # ℹ 54 more rows # ℹ 22 more variables: age\_in\_months , age\_in\_days , age\_group , # reporting\_sub\_district , district , province , # health\_facilty , taken\_date , tested\_date , # specimen\_type , reviewed\_status , episode\_no , # mumps\_igm , mumps\_igg , mumps\_pcr , case , # immunity , first\_case , first\_case\_date , UID , … # A tibble: 9 × 27 patient\_surname patient\_firstname gender date\_of\_birth age\_in\_years 1 GCELU OLETHA Female 2015-12-14 7 2 MOTLOMELO LIPHAELLO Female 2011-06-08 11 3 MULAUDZI NDUVHO Male 2019-05-17 3 4 MXENGE OTHALIVE Female 2019-03-01 4 5 NDLEBE IMANGE Male 2010-07-16 12 6 NGWABENI SELULEKO Male 2021-04-29 1 7 SAWAN SHAI Male 2021-07-29 1 8 VOORTOU NOMASOMI Female 1973-03-10 49 9 ZONO SESAM Male 2015-03-01 8 # ℹ 22 more variables: age\_in\_months , age\_in\_days , age\_group , # reporting\_sub\_district , district , province , # health\_facilty , taken\_date , tested\_date , # specimen\_type , reviewed\_status , episode\_no , # mumps\_igm , mumps\_igg , mumps\_pcr , case , # immunity , first\_case , first\_case\_date , UID , # duplicate , recent # A tibble: 24 × 27 patient\_surname patient\_firstname gender date\_of\_birth age\_in\_years 1 AMSTERDAM JODY JULIAN GEORGE Male 1994-10-22 28 2 BOOISE TAMLIN Female 1999-08-16 23 3 BUKULU OKO Male 2015-12-18 7 4 DYWILI ASENATHI Female 2020-12-15 2 5 FORTUNE NATHANIEL ETHAN Male 2017-03-09 6 6 HASSEN NAIMA Female 2012-02-12 10 7 HESS CHAD TONY Male 2001-04-08 22 8 JOHANNES MARCO Male 2004-07-20 18 9 JONES NOAH Male 2013-12-26 9 10 JUMA HAMIDA Female 2019-06-20 3 # ℹ 14 more rows # ℹ 22 more variables: age\_in\_months , age\_in\_days , age\_group , # reporting\_sub\_district , district , province , # health\_facilty , taken\_date , tested\_date , # specimen\_type , reviewed\_status , episode\_no , # mumps\_igm , mumps\_igg , mumps\_pcr , case , # immunity , first\_case , first\_case\_date , UID , … # A tibble: 11 × 27 patient\_surname patient\_firstname gender date\_of\_birth age\_in\_years 1 BALOYI TLAKUSO Male 2017-12-21 5 2 FLETCHER HENRY Male 2005-04-15 17 3 MAFOKANE ROSINAH Female 2016-08-11 6 4 MAIMELA THABO Male 2014-10-16 8 5 MAKANANISE FHATUWANI Male 1999-09-19 23 6 MALULEKE OMPHILE Female 2019-12-31 3 7 MASHAU KOKETSO Male 1800-01-01 0 8 MOHEMI ONALENNA Male 2017-01-26 6 9 MPHELA DIMAKATSO Female 1990-05-30 32 10 MTATI BRIAN Male 1989-03-01 33 11 THABA KHUTSO Female 2016-09-18 6 # ℹ 22 more variables: age\_in\_months , age\_in\_days , age\_group , # reporting\_sub\_district , district , province , # health\_facilty , taken\_date , tested\_date , # specimen\_type , reviewed\_status , episode\_no , # mumps\_igm , mumps\_igg , mumps\_pcr , case , # immunity , first\_case , first\_case\_date , UID , # duplicate , recent # A tibble: 97 × 27 patient\_surname patient\_firstname gender date\_of\_birth age\_in\_years 1 DUBE SIMPHIWE Male 2015-05-26 7 2 FATLANE KEANABILE Male 2017-10-04 5 3 FLATHELA KWANELE Female 2017-09-20 5 4 KABINI SINDISWE Female 2016-11-19 6 5 KABINI LWETHU Male 2017-09-27 5 6 KABINI SNETHANDO Male 2017-10-31 5 7 KHOHLISO TEBOGO Unknown 2001-01-14 22 8 KHUBEKA DORRY Female 1800-01-01 0 9 KHUMALO SHEPARD Male 2020-06-23 2 10 KLUSMANN LUHAN Male 2013-08-22 9 # ℹ 87 more rows # ℹ 22 more variables: age\_in\_months , age\_in\_days , age\_group , # reporting\_sub\_district , district , province , # health\_facilty , taken\_date , tested\_date , # specimen\_type , reviewed\_status , episode\_no , # mumps\_igm , mumps\_igg , mumps\_pcr , case , # immunity , first\_case , first\_case\_date , UID , … # A tibble: 280 × 27 patient\_surname patient\_firstname gender date\_of\_birth age\_in\_years 1 BHENGU KWANDA Male 2019-04-09 3 2 BHENGU ESIHLE Female 2015-08-29 7 3 BHENGU ASENELISWA Unknown 2019-03-25 3 4 BIYELA ENZOKUHLE Female 2018-04-01 4 5 BIYELA LUBANZI Unknown 2018-08-10 4 6 BUTHELEZI NTSIKA Male 2020-02-28 3 7 BUTHELEZI ASIPHE Male 2016-08-20 6 8 BUTHELEZI APHILE Female 2019-03-09 4 9 CEBEKHULU YAMKELA Female 2006-09-21 16 10 CELE USIPHILE Male 2017-12-26 5 # ℹ 270 more rows # ℹ 22 more variables: age\_in\_months , age\_in\_days , age\_group , # reporting\_sub\_district , district , province , # health\_facilty , taken\_date , tested\_date , # specimen\_type , reviewed\_status , episode\_no , # mumps\_igm , mumps\_igg , mumps\_pcr , case , # immunity , first\_case , first\_case\_date , UID , … # A tibble: 40 × 27 patient\_surname patient\_firstname gender date\_of\_birth age\_in\_years 1 AMBOTE KARABELO Female 2019-02-16 4 2 BANGAE P Female 2015-09-14 7 3 BOOI SOLULELE Male 2015-03-31 7 4 BURGER ANE Female 1991-09-19 31 5 DAVID FAZILA Female 2018-04-02 4 6 DUEIA AQUEELA Unknown 2015-12-12 7 7 DUNIA AQUEELA Female 2015-12-12 7 8 KATANE NICOLE Female 2020-01-22 3 9 LINKO MPHO Female 2012-02-28 10 10 MAKALIMA PULENG PRECIOUS Female 2016-05-31 6 # ℹ 30 more rows # ℹ 22 more variables: age\_in\_months , age\_in\_days , age\_group , # reporting\_sub\_district , district , province , # health\_facilty , taken\_date , tested\_date , # specimen\_type , reviewed\_status , episode\_no , # mumps\_igm , mumps\_igg , mumps\_pcr , case , # immunity , first\_case , first\_case\_date , UID , … # A tibble: 57 × 27 patient\_surname patient\_firstname gender date\_of\_birth age\_in\_years 1 BOYI BOKAMOSO Female 1800-01-01 0 2 DE GOEDE AMY Female 2017-09-29 5 3 DHLAMINI LESEDI Male 2016-12-21 6 4 DUBA GOITSEONE Male 2015-04-03 7 5 JONKERS ONALENNA Female 2022-07-30 0 6 LEBITSA NTHABELENG Female 2012-02-02 11 7 MAFORA KOKETSO Female 2015-12-06 7 8 MARETLWA ATLEGANG Male 2020-08-13 2 9 MARUMOLA NOOR-KHIZAR Female 2017-04-05 5 10 MELESI ONALENNA Female 2017-11-27 5 # ℹ 47 more rows # ℹ 22 more variables: age\_in\_months , age\_in\_days , age\_group , # reporting\_sub\_district , district , province , # health\_facilty , taken\_date , tested\_date , # specimen\_type , reviewed\_status , episode\_no , # mumps\_igm , mumps\_igg , mumps\_pcr , case , # immunity , first\_case , first\_case\_date , UID , …

### Gauteng

#### Descriptive

Descriptive Statistics of Laboratory Confirmed Mumps Cases in 3

| **Characteristic** | **N = 641** |
| --- | --- |
| gender |  |
| Female | 31 (48%) |
| Male | 31 (48%) |
| Unknown | 2 (3.1%) |
| age\_in\_years | 6 (8) |
| age\_group |  |
| <1 year | 4 (6.3%) |
| 1-4 years | 20 (31%) |
| 5-9 years | 23 (36%) |
| 10-14 years | 3 (4.7%) |
| 15-19 years | 5 (7.8%) |
| 20-24 years | 2 (3.1%) |
| 25-29 years | 4 (6.3%) |
| 30-34 years | 2 (3.1%) |
| 35-39 years | 0 (0%) |
| ≥40 years | 1 (1.6%) |
| district |  |
| City Of Tshwane Metro | 14 (22%) |
| City Of Johannesburg Metro | 23 (36%) |
| Ekurhuleni Metro | 22 (34%) |
| West Rand | 3 (4.7%) |
| Sedibeng | 2 (3.1%) |
| **1n (%); Median (IQR)** | |

#### Epidemic Curve



#### Cases by District

Number of Cases Per District in Gauteng

| **Characteristic** | **Overall, N = 641** | **2023-Apr, N = 111** | **2023-Feb, N = 211** | **2023-Jan, N = 131** | **2023-Mar, N = 191** |
| --- | --- | --- | --- | --- | --- |
| district |  |  |  |  |  |
| City Of Tshwane Metro | 14 | 0 | 4 | 3 | 7 |
| City Of Johannesburg Metro | 23 | 0 | 10 | 8 | 5 |
| Ekurhuleni Metro | 22 | 11 | 5 | 0 | 6 |
| West Rand | 3 | 0 | 1 | 2 | 0 |
| Sedibeng | 2 | 0 | 1 | 0 | 1 |
| **1n** | | | | | |

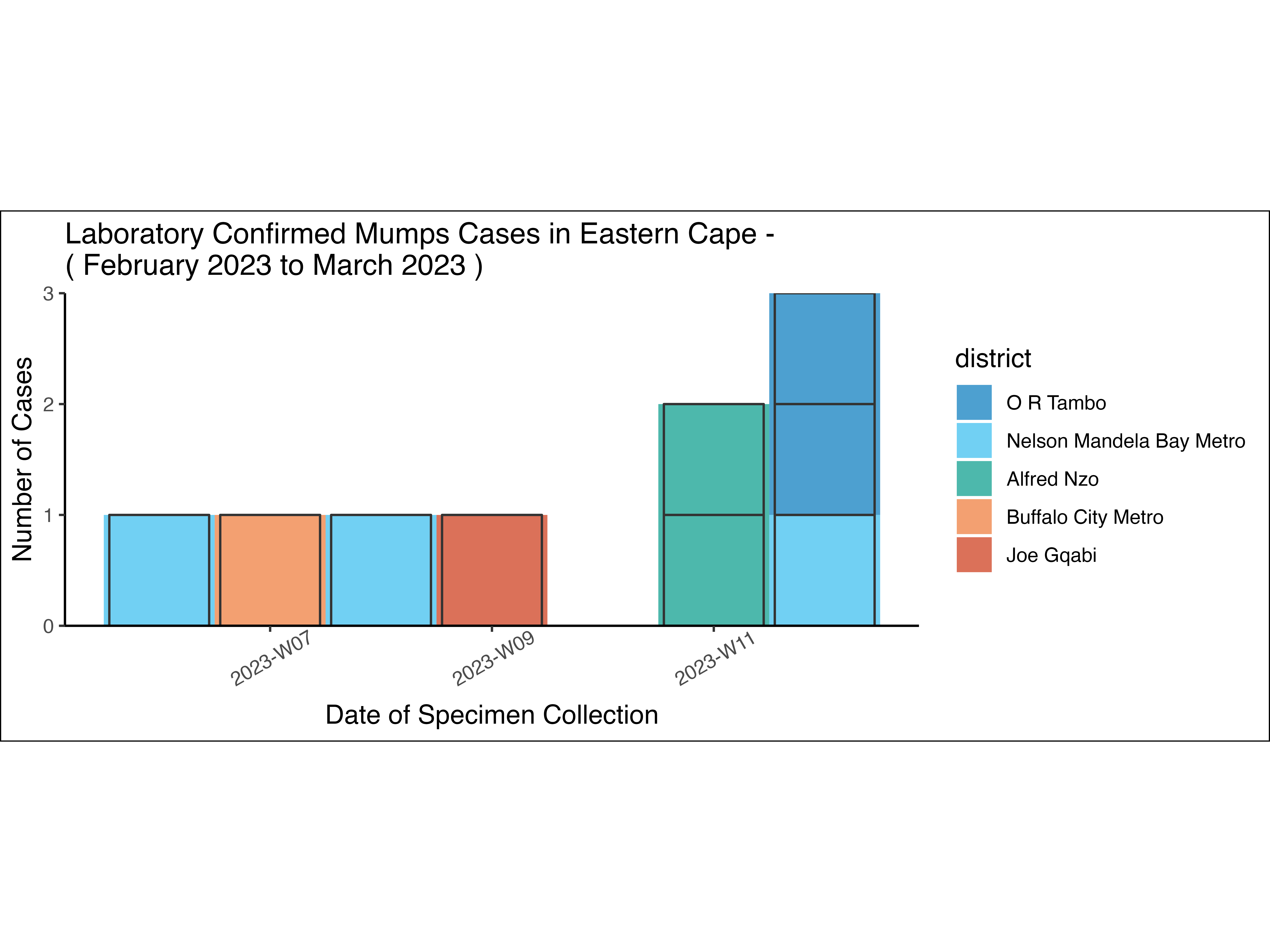
### Eastern Cape

#### Descriptive

Descriptive Statistics of Laboratory Confirmed Mumps Cases in 1

| **Characteristic** | **N = 91** |
| --- | --- |
| gender |  |
| Female | 4 (44%) |
| Male | 5 (56%) |
| age\_in\_years |  |
| 1 | 2 (22%) |
| 3 | 1 (11%) |
| 4 | 1 (11%) |
| 7 | 1 (11%) |
| 8 | 1 (11%) |
| 11 | 1 (11%) |
| 12 | 1 (11%) |
| 49 | 1 (11%) |
| age\_group |  |
| <1 year | 0 (0%) |
| 1-4 years | 4 (44%) |
| 5-9 years | 2 (22%) |
| 10-14 years | 2 (22%) |
| 15-19 years | 0 (0%) |
| 20-24 years | 0 (0%) |
| 25-29 years | 0 (0%) |
| 30-34 years | 0 (0%) |
| 35-39 years | 0 (0%) |
| ≥40 years | 1 (11%) |
| district |  |
| O R Tambo | 2 (22%) |
| Joe Gqabi | 1 (11%) |
| Nelson Mandela Bay Metro | 3 (33%) |
| Alfred Nzo | 2 (22%) |
| Buffalo City Metro | 1 (11%) |
| **1n (%)** | |

#### Epidemic Curve



#### Cases by District

Number of Cases Per District in Eastern Cape

| **Characteristic** | **Overall, N = 91** | **2023-Feb, N = 41** | **2023-Mar, N = 51** |
| --- | --- | --- | --- |
| district |  |  |  |
| O R Tambo | 2 | 0 | 2 |
| Joe Gqabi | 1 | 1 | 0 |
| Nelson Mandela Bay Metro | 3 | 2 | 1 |
| Alfred Nzo | 2 | 0 | 2 |
| Buffalo City Metro | 1 | 1 | 0 |
| **1n** | | | |

### Northern Cape

#### Descriptive

#table1(df\_cases\_3)

#### Epidemic Curve

#epicurve\_3<- epicurve\_by(df\_cases\_3)  
  
# Save the plot as PNG with a unique name  
#ggsave(  
# "mumps\_3\_epicurve.png",  
# suppressWarnings(epicurve\_3+ theme(plot.background = element\_rect(fill = "white", color = "black", linewidth = 0.5))),  
# width = 8,  
# height = 6,  
# dpi = 1000  
#)  
  
# Include the plot in the Quarto document  
#knitr::include\_graphics("mumps\_3\_epicurve.png")

#### Cases by District

#cases\_by\_district(df\_cases\_3)

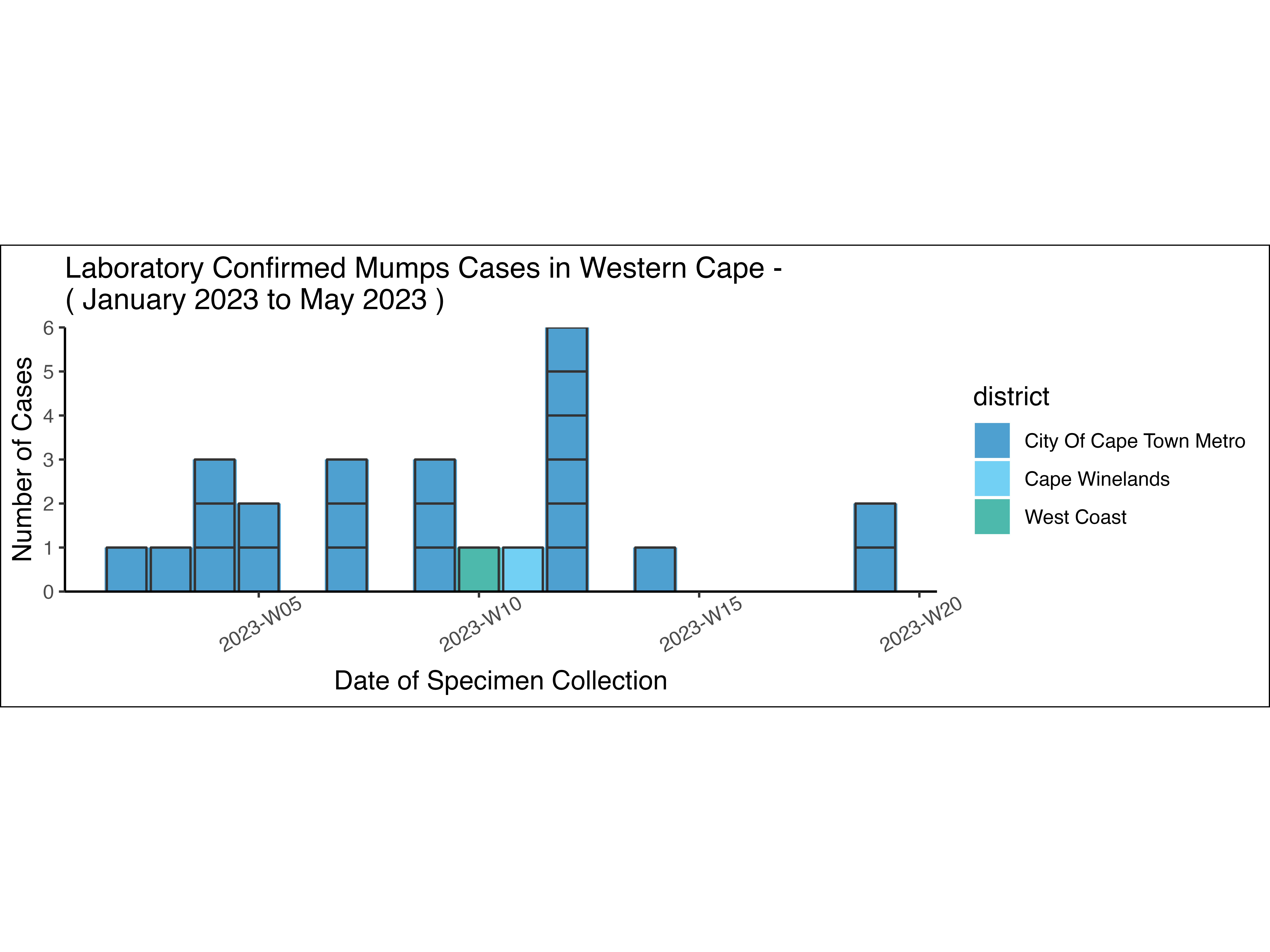
### Western Cape

#### Descriptive

Descriptive Statistics of Laboratory Confirmed Mumps Cases in 9

| **Characteristic** | **N = 241** |
| --- | --- |
| gender |  |
| Female | 10 (42%) |
| Male | 14 (58%) |
| age\_in\_years | 9 (13) |
| age\_group |  |
| <1 year | 1 (4.2%) |
| 1-4 years | 3 (13%) |
| 5-9 years | 9 (38%) |
| 10-14 years | 2 (8.3%) |
| 15-19 years | 3 (13%) |
| 20-24 years | 2 (8.3%) |
| 25-29 years | 1 (4.2%) |
| 30-34 years | 0 (0%) |
| 35-39 years | 3 (13%) |
| ≥40 years | 0 (0%) |
| district |  |
| City Of Cape Town Metro | 22 (92%) |
| West Coast | 1 (4.2%) |
| Cape Winelands | 1 (4.2%) |
| **1n (%); Median (IQR)** | |

#### Epidemic Curve



#### Cases by District

Number of Cases Per District in Western Cape

| **Characteristic** | **Overall, N = 241** | **2023-Apr, N = 11** | **2023-Feb, N = 71** | **2023-Jan, N = 61** | **2023-Mar, N = 81** | **2023-May, N = 21** |
| --- | --- | --- | --- | --- | --- | --- |
| district |  |  |  |  |  |  |
| City Of Cape Town Metro | 22 | 1 | 7 | 6 | 6 | 2 |
| West Coast | 1 | 0 | 0 | 0 | 1 | 0 |
| Cape Winelands | 1 | 0 | 0 | 0 | 1 | 0 |
| **1n** | | | | | | |

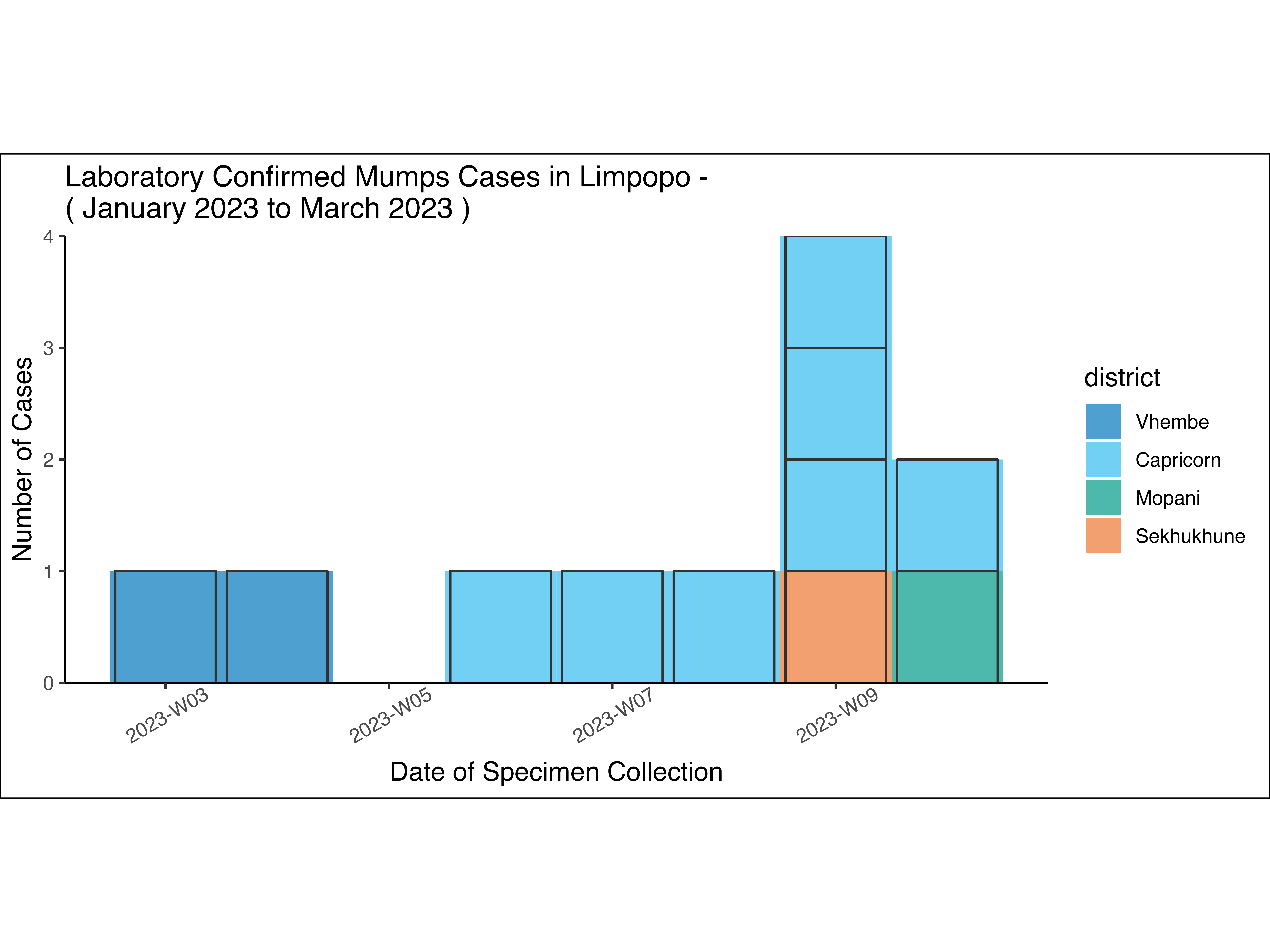
### Limpopo

#### Descriptive

Descriptive Statistics of Laboratory Confirmed Mumps Cases in 5

| **Characteristic** | **N = 111** |
| --- | --- |
| gender |  |
| Female | 4 (36%) |
| Male | 7 (64%) |
| age\_in\_years |  |
| 0 | 1 (9.1%) |
| 3 | 1 (9.1%) |
| 5 | 1 (9.1%) |
| 6 | 3 (27%) |
| 8 | 1 (9.1%) |
| 17 | 1 (9.1%) |
| 23 | 1 (9.1%) |
| 32 | 1 (9.1%) |
| 33 | 1 (9.1%) |
| age\_group |  |
| <1 year | 1 (9.1%) |
| 1-4 years | 1 (9.1%) |
| 5-9 years | 5 (45%) |
| 10-14 years | 0 (0%) |
| 15-19 years | 1 (9.1%) |
| 20-24 years | 1 (9.1%) |
| 25-29 years | 0 (0%) |
| 30-34 years | 2 (18%) |
| 35-39 years | 0 (0%) |
| ≥40 years | 0 (0%) |
| district |  |
| Mopani | 1 (9.1%) |
| Vhembe | 2 (18%) |
| Capricorn | 7 (64%) |
| Sekhukhune | 1 (9.1%) |
| **1n (%)** | |

#### Epidemic Curve



#### Cases by District

Number of Cases Per District in Limpopo

| **Characteristic** | **Overall, N = 111** | **2023-Feb, N = 41** | **2023-Jan, N = 21** | **2023-Mar, N = 51** |
| --- | --- | --- | --- | --- |
| district |  |  |  |  |
| Mopani | 1 | 0 | 0 | 1 |
| Vhembe | 2 | 0 | 2 | 0 |
| Capricorn | 7 | 3 | 0 | 4 |
| Sekhukhune | 1 | 1 | 0 | 0 |
| **1n** | | | | |

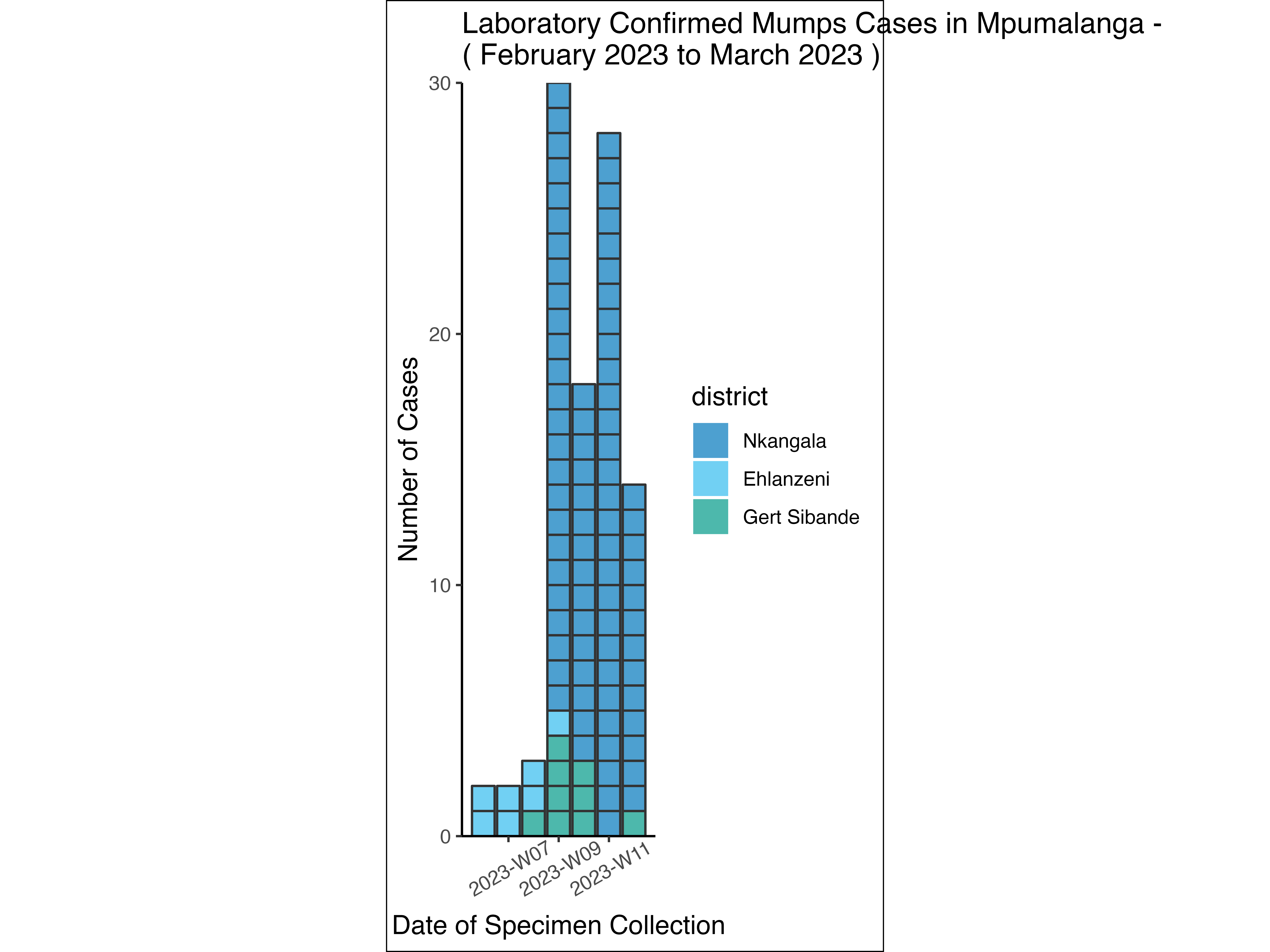
### Mpumalanga

#### Descriptive

Descriptive Statistics of Laboratory Confirmed Mumps Cases in 6

| **Characteristic** | **N = 971** |
| --- | --- |
| gender |  |
| Female | 43 (44%) |
| Male | 48 (49%) |
| Unknown | 6 (6.2%) |
| age\_in\_years | 6.00 (2.00) |
| age\_group |  |
| <1 year | 2 (2.1%) |
| 1-4 years | 20 (21%) |
| 5-9 years | 70 (72%) |
| 10-14 years | 3 (3.1%) |
| 15-19 years | 1 (1.0%) |
| 20-24 years | 1 (1.0%) |
| 25-29 years | 0 (0%) |
| 30-34 years | 0 (0%) |
| 35-39 years | 0 (0%) |
| ≥40 years | 0 (0%) |
| district |  |
| Nkangala | 81 (84%) |
| Gert Sibande | 9 (9.3%) |
| Ehlanzeni | 7 (7.2%) |
| **1n (%); Median (IQR)** | |

#### Epidemic Curve



#### Cases by District

Number of Cases Per District in Mpumalanga

| **Characteristic** | **Overall, N = 971** | **2023-Feb, N = 141** | **2023-Mar, N = 831** |
| --- | --- | --- | --- |
| district |  |  |  |
| Nkangala | 81 | 4 | 77 |
| Gert Sibande | 9 | 4 | 5 |
| Ehlanzeni | 7 | 6 | 1 |
| **1n** | | | |

### Kwazulu-Natal

#### Descriptive

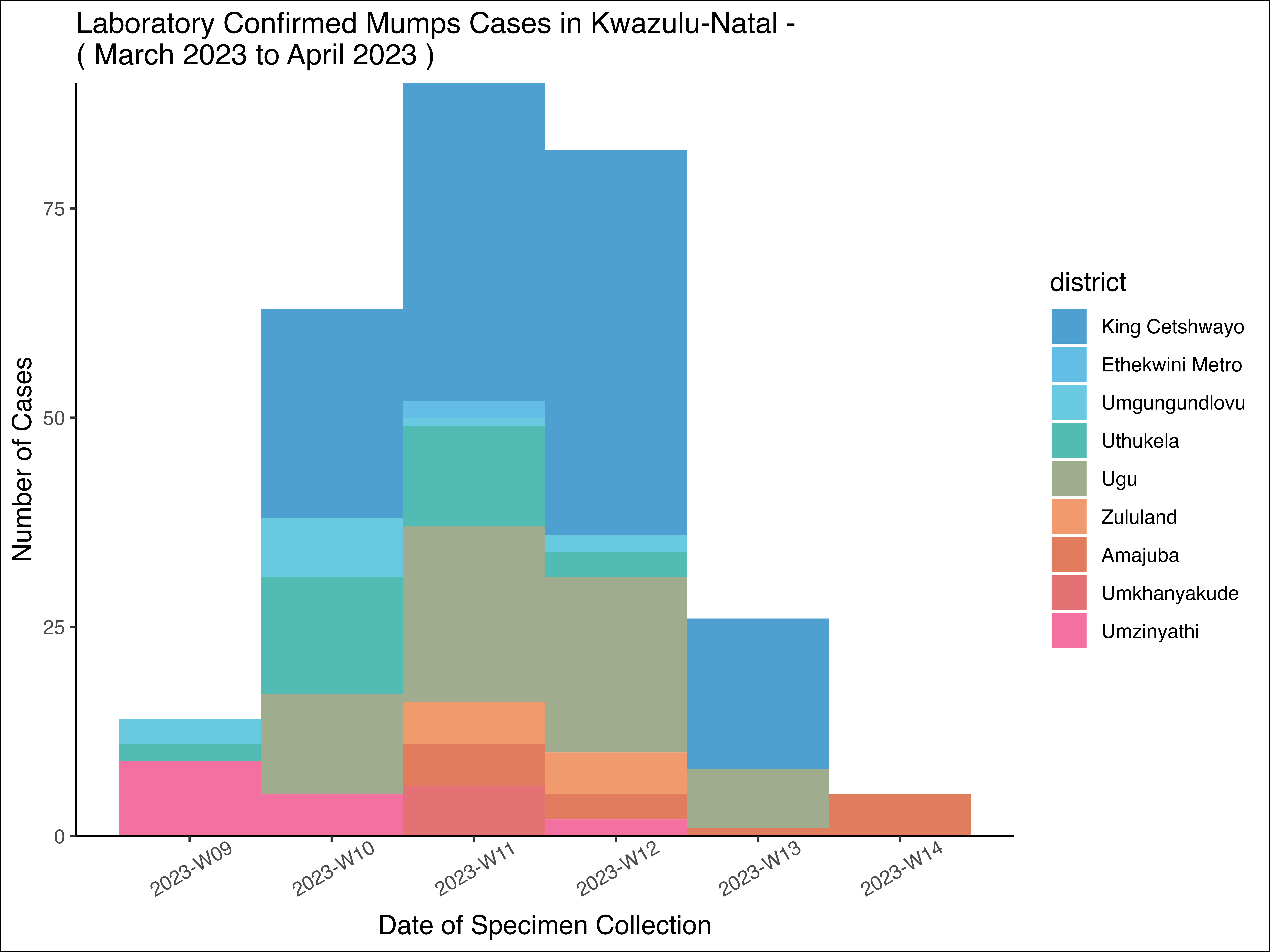
Descriptive Statistics of Laboratory Confirmed Mumps Cases in 4

| **Characteristic** | **N = 2801** |
| --- | --- |
| gender |  |
| Female | 138 (49%) |
| Male | 130 (46%) |
| Unknown | 12 (4.3%) |
| age\_in\_years | 5.00 (3.00) |
| age\_group |  |
| <1 year | 7 (2.5%) |
| 1-4 years | 88 (31%) |
| 5-9 years | 170 (61%) |
| 10-14 years | 12 (4.3%) |
| 15-19 years | 2 (0.7%) |
| 20-24 years | 0 (0%) |
| 25-29 years | 1 (0.4%) |
| 30-34 years | 0 (0%) |
| 35-39 years | 0 (0%) |
| ≥40 years | 0 (0%) |
| district |  |
| King Cetshwayo | 127 (45%) |
| Umkhanyakude | 6 (2.1%) |
| Umzinyathi | 16 (5.7%) |
| Ugu | 61 (22%) |
| Amajuba | 14 (5.0%) |
| Uthukela | 31 (11%) |
| Umgungundlovu | 13 (4.6%) |
| Zululand | 10 (3.6%) |
| Ethekwini Metro | 2 (0.7%) |
| **1n (%); Median (IQR)** | |

#### Epidemic Curve

|  |  |  |
| --- | --- | --- |
| **date\_index** | **district** | **count** |
| 2774 | Umgungundlovu | 3 |
| 2774 | Uthukela | 2 |
| 2774 | Umzinyathi | 9 |
| 2775 | King Cetshwayo | 25 |
| 2775 | Umgungundlovu | 7 |
| 2775 | Uthukela | 14 |
| 2775 | Ugu | 12 |
| 2775 | Umzinyathi | 5 |
| 2776 | King Cetshwayo | 38 |
| 2776 | Ethekwini Metro | 2 |
| 2776 | Umgungundlovu | 1 |
| 2776 | Uthukela | 12 |
| 2776 | Ugu | 21 |
| 2776 | Zululand | 5 |
| 2776 | Amajuba | 5 |
| 2776 | Umkhanyakude | 6 |
| 2777 | King Cetshwayo | 46 |
| 2777 | Umgungundlovu | 2 |
| 2777 | Uthukela | 3 |
| 2777 | Ugu | 21 |
| 2777 | Zululand | 5 |
| 2777 | Amajuba | 3 |
| 2777 | Umzinyathi | 2 |
| 2778 | King Cetshwayo | 18 |
| 2778 | Ugu | 7 |
| 2778 | Amajuba | 1 |
| 2779 | Amajuba | 5 |

Using more colors (9) than this palette can handle (6); some colors will be interpolated.  
Consider using `muted` palette instead?



#### Cases by District

Number of Cases Per District in Kwazulu-Natal

| **Characteristic** | **Overall, N = 2801** | **2023-Apr, N = 51** | **2023-Mar, N = 2751** |
| --- | --- | --- | --- |
| district |  |  |  |
| King Cetshwayo | 127 | 0 | 127 |
| Umkhanyakude | 6 | 0 | 6 |
| Umzinyathi | 16 | 0 | 16 |
| Ugu | 61 | 0 | 61 |
| Amajuba | 14 | 5 | 9 |
| Uthukela | 31 | 0 | 31 |
| Umgungundlovu | 13 | 0 | 13 |
| Zululand | 10 | 0 | 10 |
| Ethekwini Metro | 2 | 0 | 2 |
| **1n** | | | |

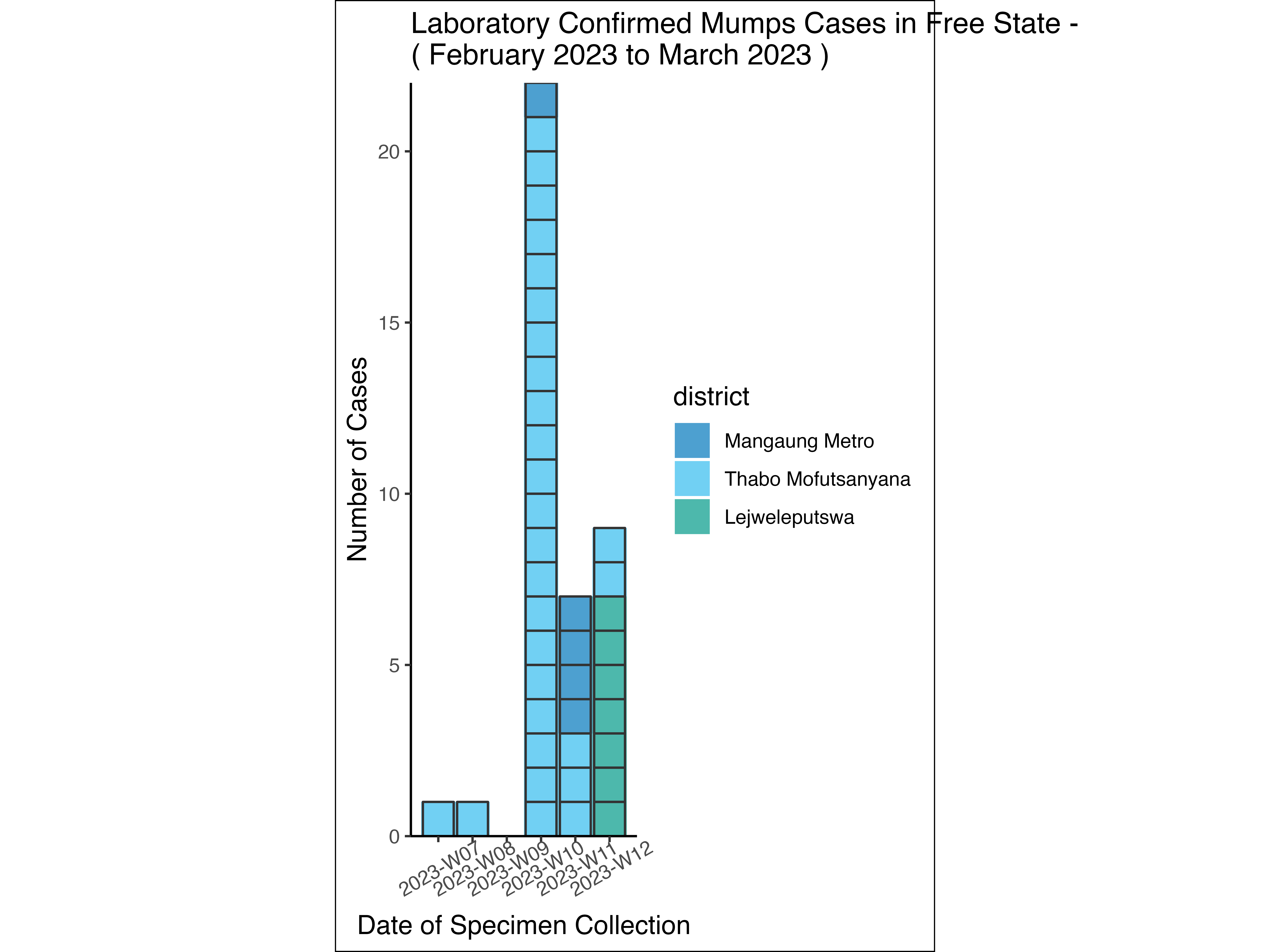
### Free State

#### Descriptive

Descriptive Statistics of Laboratory Confirmed Mumps Cases in 2

| **Characteristic** | **N = 401** |
| --- | --- |
| gender |  |
| Female | 22 (55%) |
| Male | 17 (43%) |
| Unknown | 1 (2.5%) |
| age\_in\_years | 6.0 (3.0) |
| age\_group |  |
| <1 year | 0 (0%) |
| 1-4 years | 13 (33%) |
| 5-9 years | 22 (55%) |
| 10-14 years | 1 (2.5%) |
| 15-19 years | 1 (2.5%) |
| 20-24 years | 1 (2.5%) |
| 25-29 years | 0 (0%) |
| 30-34 years | 1 (2.5%) |
| 35-39 years | 0 (0%) |
| ≥40 years | 1 (2.5%) |
| district |  |
| Thabo Mofutsanyana | 28 (70%) |
| Lejweleputswa | 7 (18%) |
| Mangaung Metro | 5 (13%) |
| **1n (%); Median (IQR)** | |

#### Epidemic Curve



#### Cases by District

Number of Cases Per District in Free State

| **Characteristic** | **Overall, N = 401** | **2023-Feb, N = 21** | **2023-Mar, N = 381** |
| --- | --- | --- | --- |
| district |  |  |  |
| Thabo Mofutsanyana | 28 | 2 | 26 |
| Lejweleputswa | 7 | 0 | 7 |
| Mangaung Metro | 5 | 0 | 5 |
| **1n** | | | |

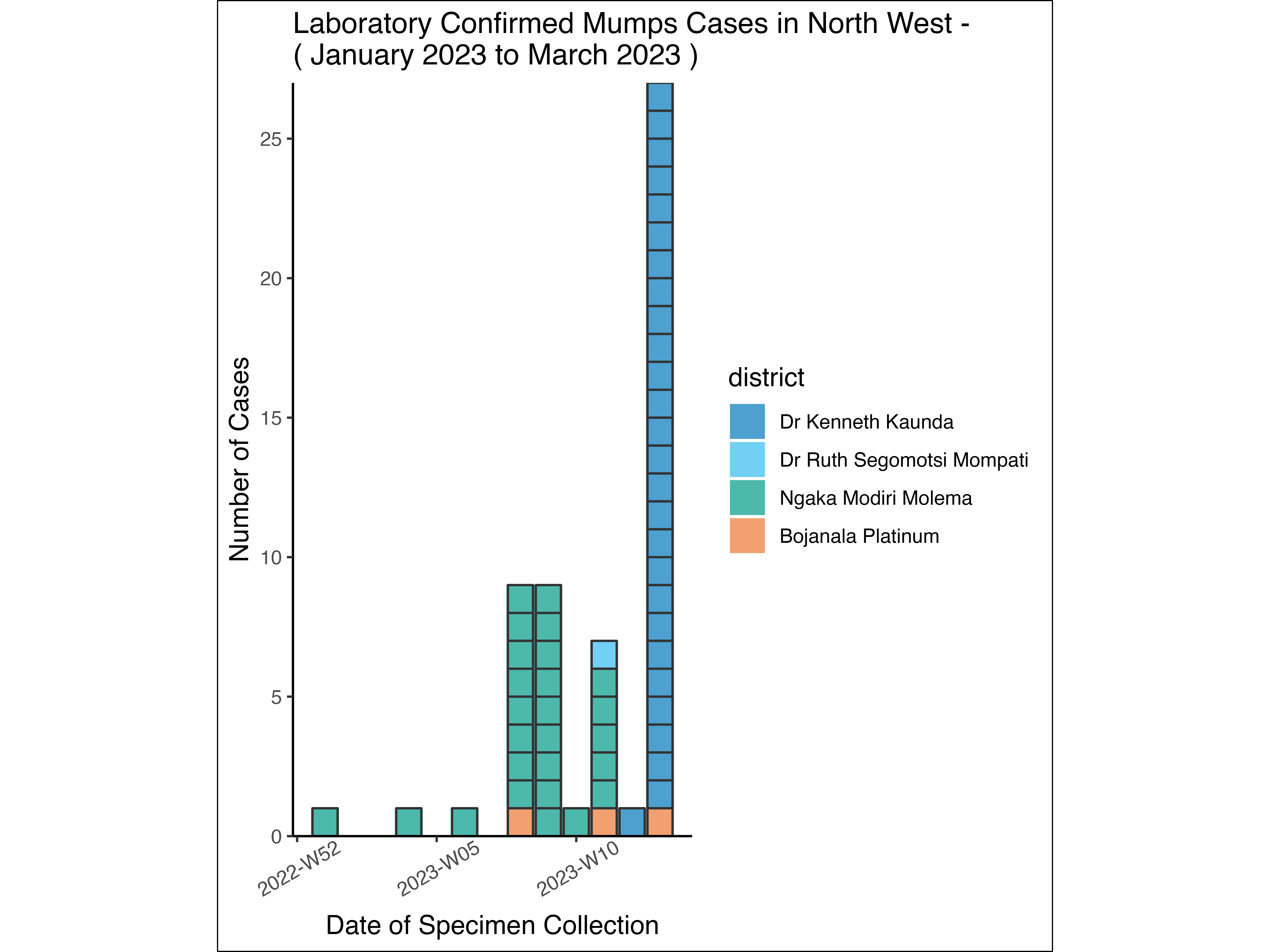
### North West

#### Descriptive

Descriptive Statistics of Laboratory Confirmed Mumps Cases in 7

| **Characteristic** | **N = 571** |
| --- | --- |
| gender |  |
| Female | 30 (53%) |
| Male | 26 (46%) |
| Unknown | 1 (1.8%) |
| age\_in\_years | 6.0 (3.0) |
| age\_group |  |
| <1 year | 2 (3.5%) |
| 1-4 years | 9 (16%) |
| 5-9 years | 34 (60%) |
| 10-14 years | 10 (18%) |
| 15-19 years | 0 (0%) |
| 20-24 years | 1 (1.8%) |
| 25-29 years | 0 (0%) |
| 30-34 years | 0 (0%) |
| 35-39 years | 0 (0%) |
| ≥40 years | 1 (1.8%) |
| district |  |
| Ngaka Modiri Molema | 26 (46%) |
| Dr Kenneth Kaunda | 27 (47%) |
| Bojanala Platinum | 3 (5.3%) |
| Dr Ruth Segomotsi Mompati | 1 (1.8%) |
| **1n (%); Median (IQR)** | |

#### Epidemic Curve



#### Cases by District

Number of Cases Per District in North West

| **Characteristic** | **Overall, N = 571** | **2023-Feb, N = 171** | **2023-Jan, N = 21** | **2023-Mar, N = 381** |
| --- | --- | --- | --- | --- |
| district |  |  |  |  |
| Ngaka Modiri Molema | 26 | 16 | 2 | 8 |
| Dr Kenneth Kaunda | 27 | 0 | 0 | 27 |
| Bojanala Platinum | 3 | 1 | 0 | 2 |
| Dr Ruth Segomotsi Mompati | 1 | 0 | 0 | 1 |
| **1n** | | | | |