Vaccine Data plot redesign

Ruoyuan Li

Pattern of Original plot

It showed the number of reported cases along with year and pointed out vaccine licensed year and historical year for audience to explain what happened after those event.

Redesign plots

```
library(readr)
library(ggplot2)
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

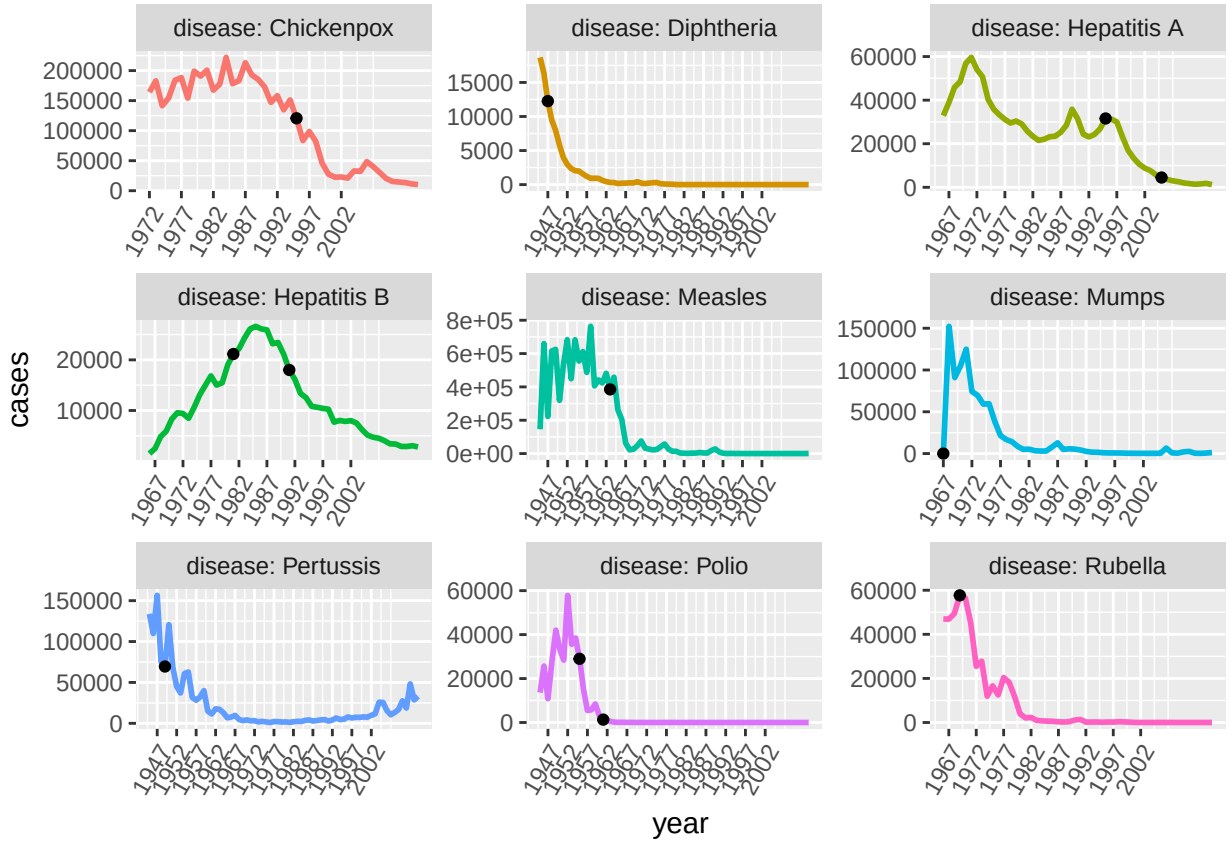
```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library(tidyr)
library(directlabels)
vac_data<-read_csv("vaccine_data_online.csv")
```

```
## Parsed with column specification:
## cols(
##   id = col_double(),
##   cases = col_integer(),
##   disease = col_character(),
##   year = col_integer(),
##   vaccine = col_character(),
##   event = col_character(),
##   event_date = col_character(),
##   head = col_logical()
## )
```

```
vaccine<-(vac_data%>%select(year,cases,disease,vaccine)
         %>%filter(!vaccine %in% c("FALSE"))
)
g1<-(ggplot(vac_data,aes(x=year)))+scale_x_continuous(breaks = seq(1947,2005,5))
g2<-g1+geom_line(aes(y=cases,colour=disease,group=disease),size=1,show.legend = FALSE)
g3<-print(g2
          +facet_wrap(~disease,labeller = label_both,scales = "free")
          +geom_point(data=vaccine,aes(x=year,y=cases,fill=vaccine),show.legend = FALSE)
          +theme(axis.text.x = element_text(angle = 60, hjust = 1))
)
```



- easy to see the trend after vaccine licensed
- scale of y free adjust by diseases, easy to read number of cases