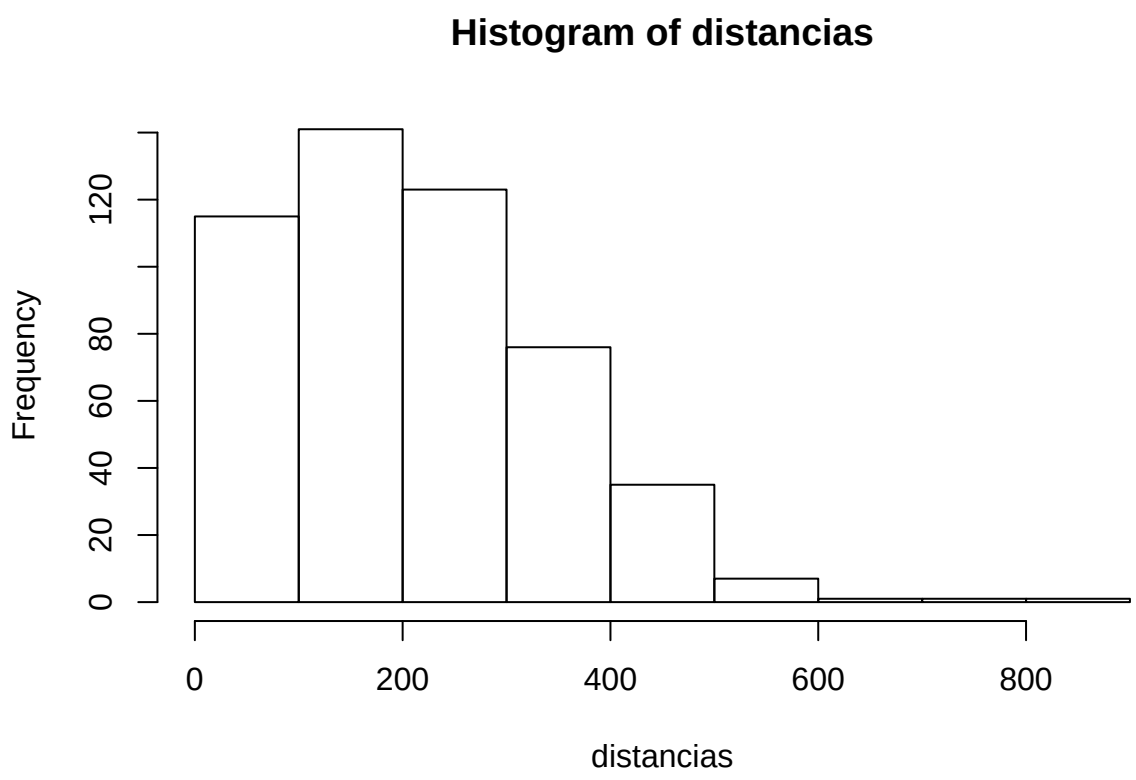
# Resultados

Carlos Meijide Garcia

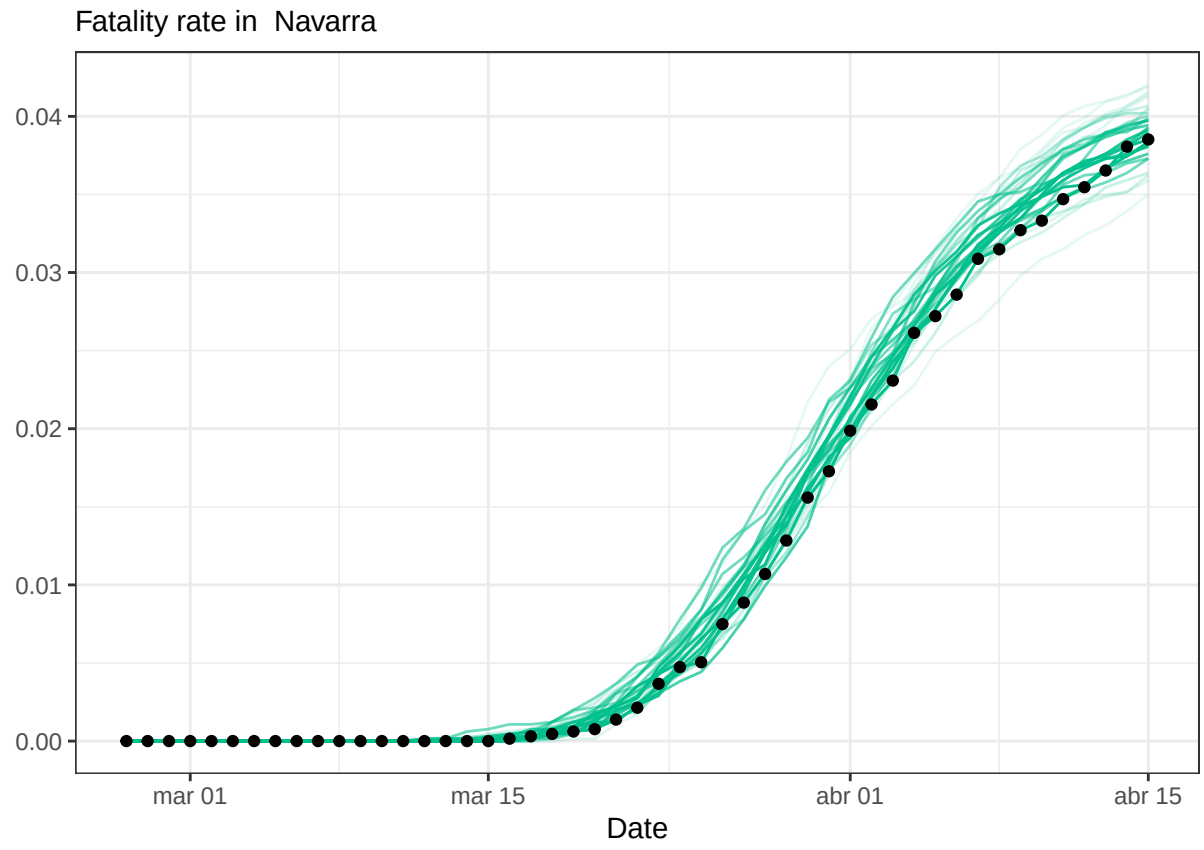
```
library("tidyr")
library("ggplot2")

# library("fda.usc")
# trayectorias= mortos_raw[,-1]
# datosfda= fdata(trayectorias)
# plot(datosfda)

#setwd("~/Modelo_Covid_descargado/Results/Cataluna/")

################################
##### CAMBIAR DENDE AQUÍ #####
################################

i=15 #indice da autonomia

i1_raw= read.table("../../src/Results/Espana/Navarra/SimulaNavarra_I1.txt")
i2_raw= read.table("../../src/Results/Espana/Navarra/SimulaNavarra_I2.txt")
i3_raw= read.table("../../src/Results/Espana/Navarra/SimulaNavarra_I3.txt")
r1_raw= read.table("../../src/Results/Espana/Navarra/SimulaNavarra_R1.txt")
r2_raw= read.table("../../src/Results/Espana/Navarra/SimulaNavarra_R2.txt")
mortos_raw=read.table("../../src/Results/Espana/Navarra/SimulaNavarra_XM.txt")
erro=read.table("../../src/Results/Espana/Navarra/SimulaNavarra_Error.txt")

autonomias=read.csv("../../Data/Espana_Autonomias.csv",header=TRUE,sep='\t')

reais=read.csv("../../Data/Espana_ccaa_covid19_fallecidos.csv",header=TRUE,sep=',')

####################
##### ATA AQUI #####
####################

reaisi=as.numeric(reais[(reais$cod_ine)==i,])

nceros=0
j=0
while(reaisi[j+3]==0) {
  nceros=nceros+1
  j=j+1
  }



d=ncol(mortos_raw)
```

```
r= 18-nceros#numero de dias con antelacion cos que empeza o simulador

datas=seq( as.Date("2020-03-03")-r, by=1, len=d-1)
names(i1_raw)[-1]=format(datas,"%Y-%m-%d")
names(i2_raw)[-1]=format(datas,"%Y-%m-%d")
names(i3_raw)[-1]=format(datas,"%Y-%m-%d")
names(r1_raw)[-1]=format(datas,"%Y-%m-%d")
names(r2_raw)[-1]=format(datas,"%Y-%m-%d")
names(mortos_raw)[-1]=format(datas,"%Y-%m-%d")



morultimodia=as.double(erro[1])
distancias=(abs(mortos_raw[,ncol(mortos_raw)]-morultimodia))
hist(distancias)
```

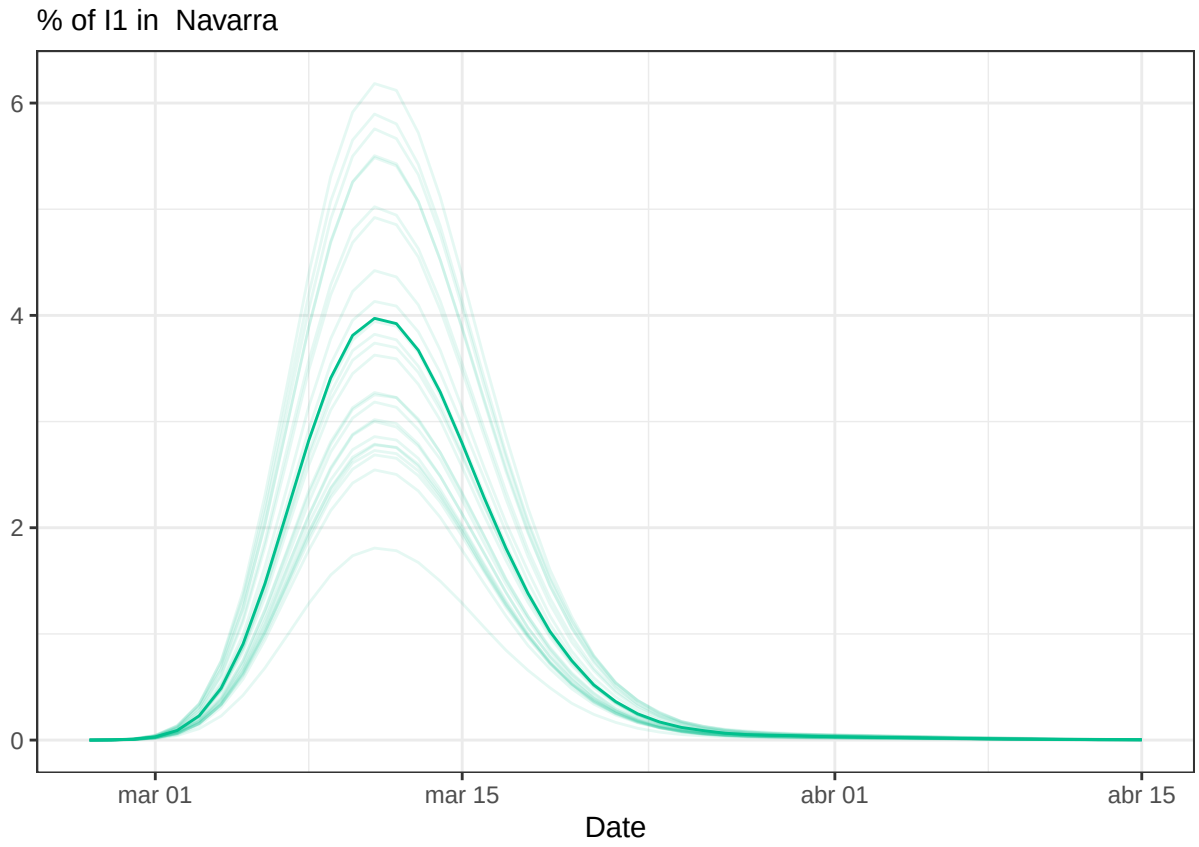



```
index=order(distancias)
ordenados=mortos_raw[index,]
ordenados$dis=distancias[index]
aceptados=ordenados[ordenados$dis<morultimodia*0.1,]
mortos=aceptados

caben=reaisi[3:(ncol(mortos_raw)-r+1)]
moreais=c(-1,rep(0,ncol(aceptados)-length(caben)-2),caben,-1)
mortosconreais=rbind(aceptados,moreais)
```

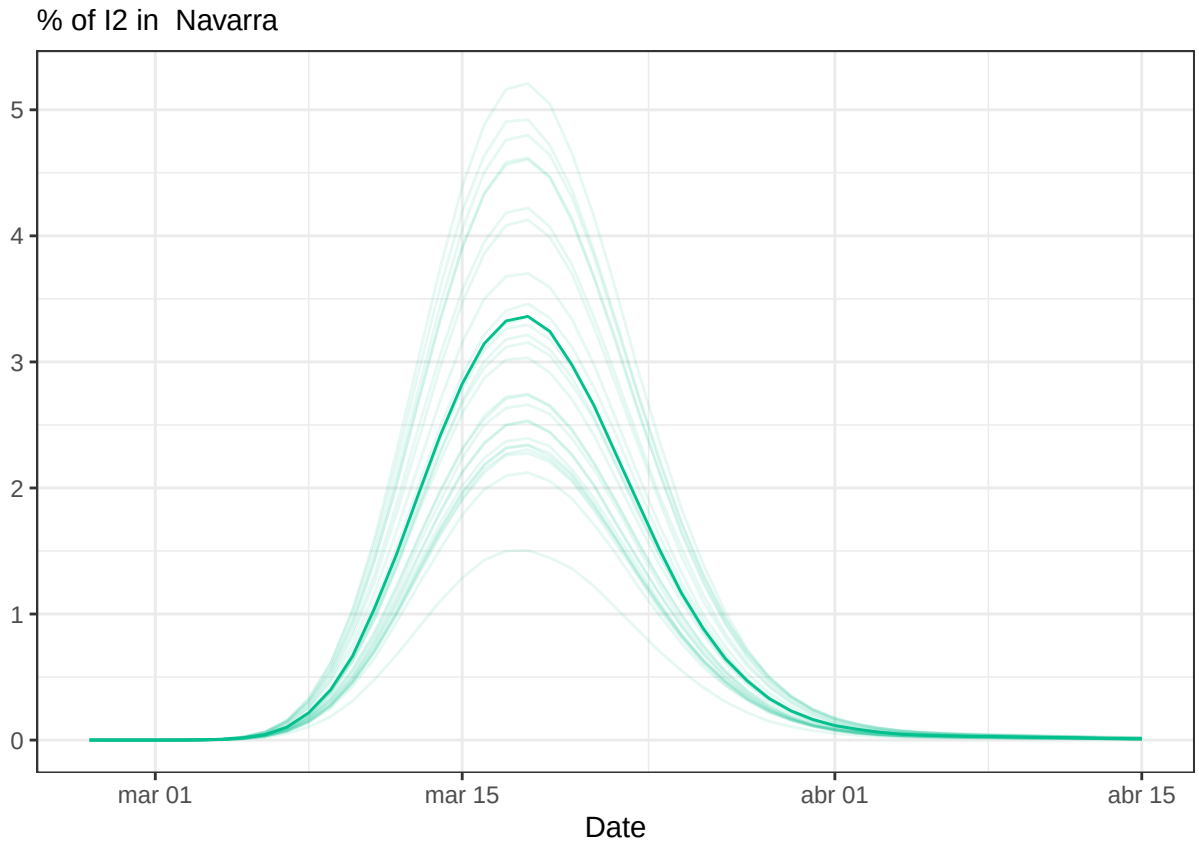
```
mord=gather(mortosconreais,key="dia",value="cantos",-V1,-dis)

mord$dia=as.Date(mord$dia)

ggplot(mord) +
  geom_line(aes(dia, 100*cantos/autonomias$Población[i],group= V1,alpha=exp(-dis^2/(2*var(dis)))),colou
  geom_point(data=mord[mord$dis==-1,],aes(dia, 100*cantos/autonomias$Población[i]),colour='black') +
  scale_x_date() +
  theme_bw() +
  labs(x = "Date", y = "",
       subtitle = paste("Fatality rate in ", autonomias$Comunidad[i]))
```



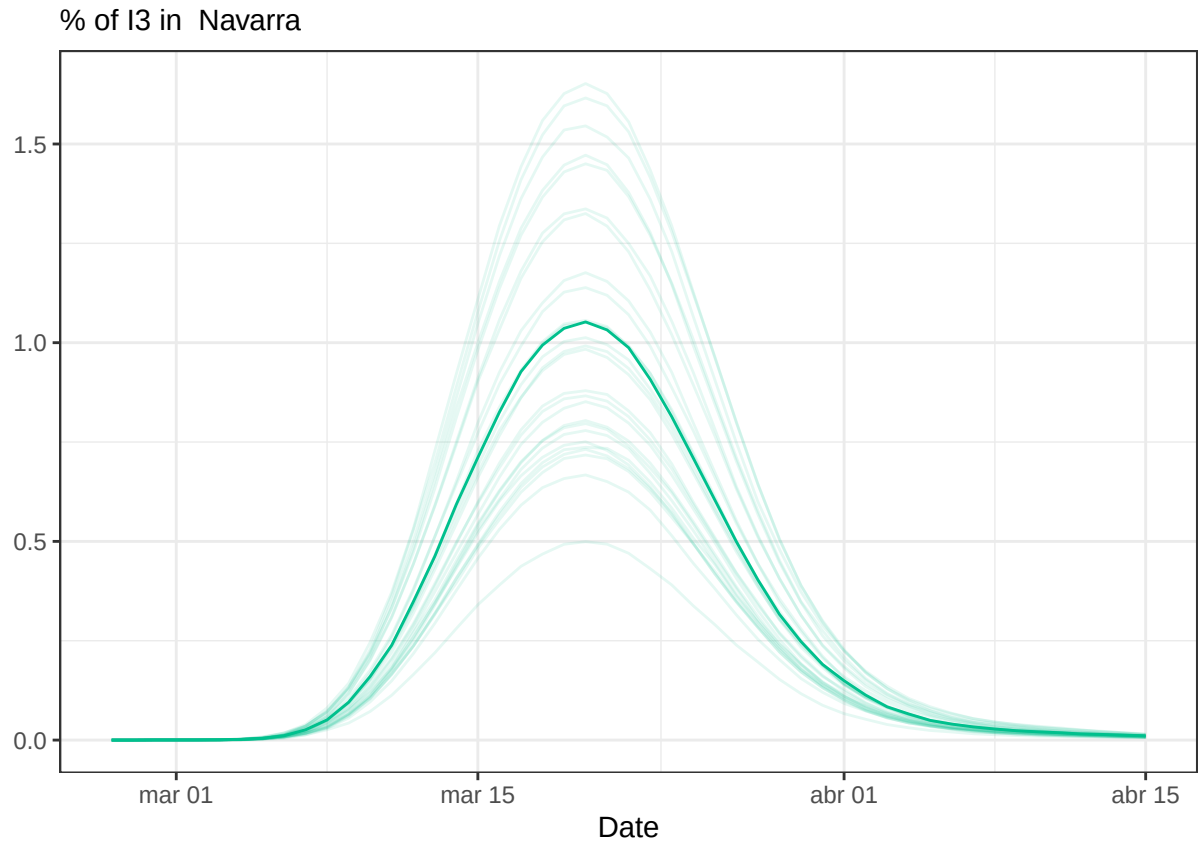

```
i1=i1_raw[aceptados$V1,]
i1$dis=aceptados$dis

i1ord=gather(i1,key="dia",value="cantos",-V1,-dis)
i1ord$dia=as.Date(i1ord$dia)

ggplot(i1ord) +
  geom_line(aes(dia, 100*cantos/autonomias$Población[i],group= V1,alpha=1/((1+dis)^100)),colour='#00C08
  scale_x_date() +
  theme_bw() +
  labs(x = "Date", y = "",
       subtitle = paste("% of I1 in ", autonomias$Comunidad[i]))
```



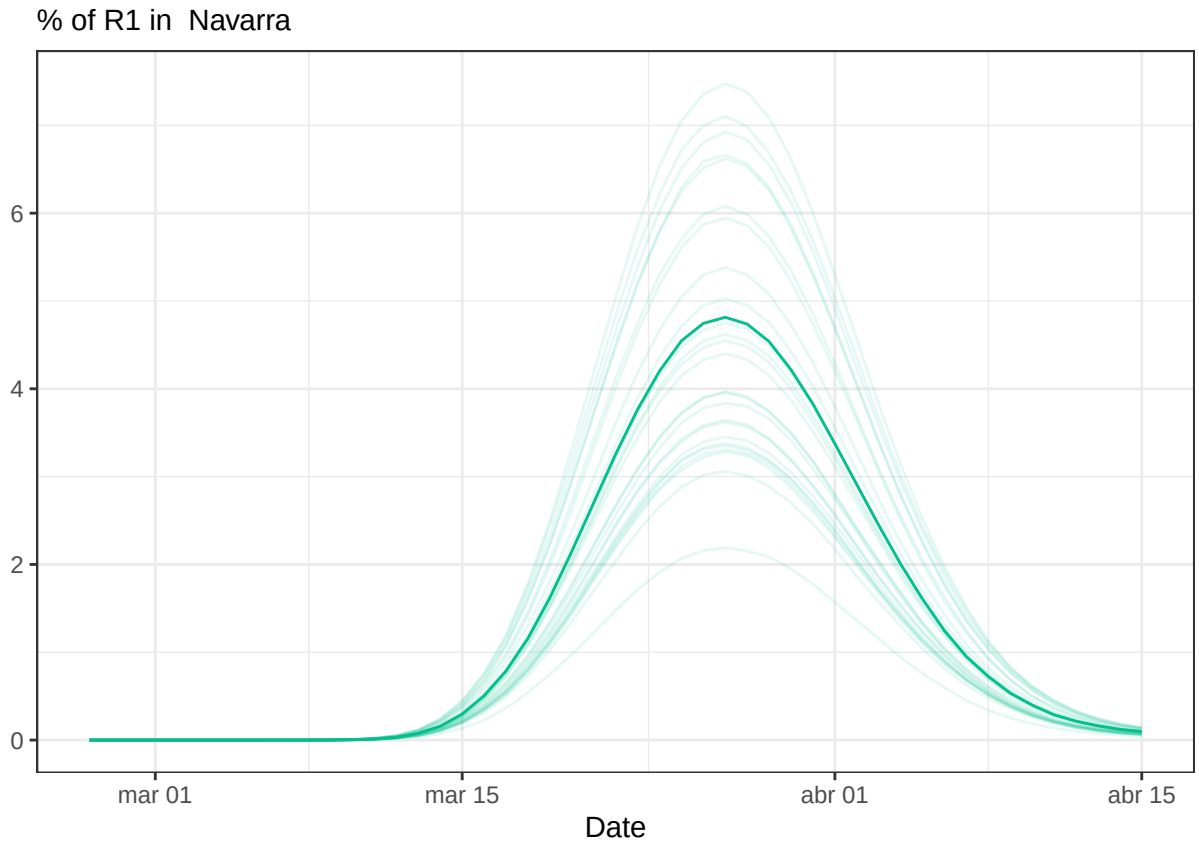

```
i2=i2_raw[aceptados$V1,]
i2$dis=aceptados$dis

i2ord=gather(i2,key="dia",value="cantos",-V1,-dis)
i2ord$dia=as.Date(i1ord$dia)

ggplot(i2ord) +
  geom_line(aes(dia, 100*cantos/autonomias$Población[i],group= V1,alpha=1/((1+dis)^100)),colour='#00C08
  scale_x_date() +
  theme_bw() +
  labs(x = "Date", y = "",
       subtitle = paste("% of I2 in ", autonomias$Comunidad[i]))
```



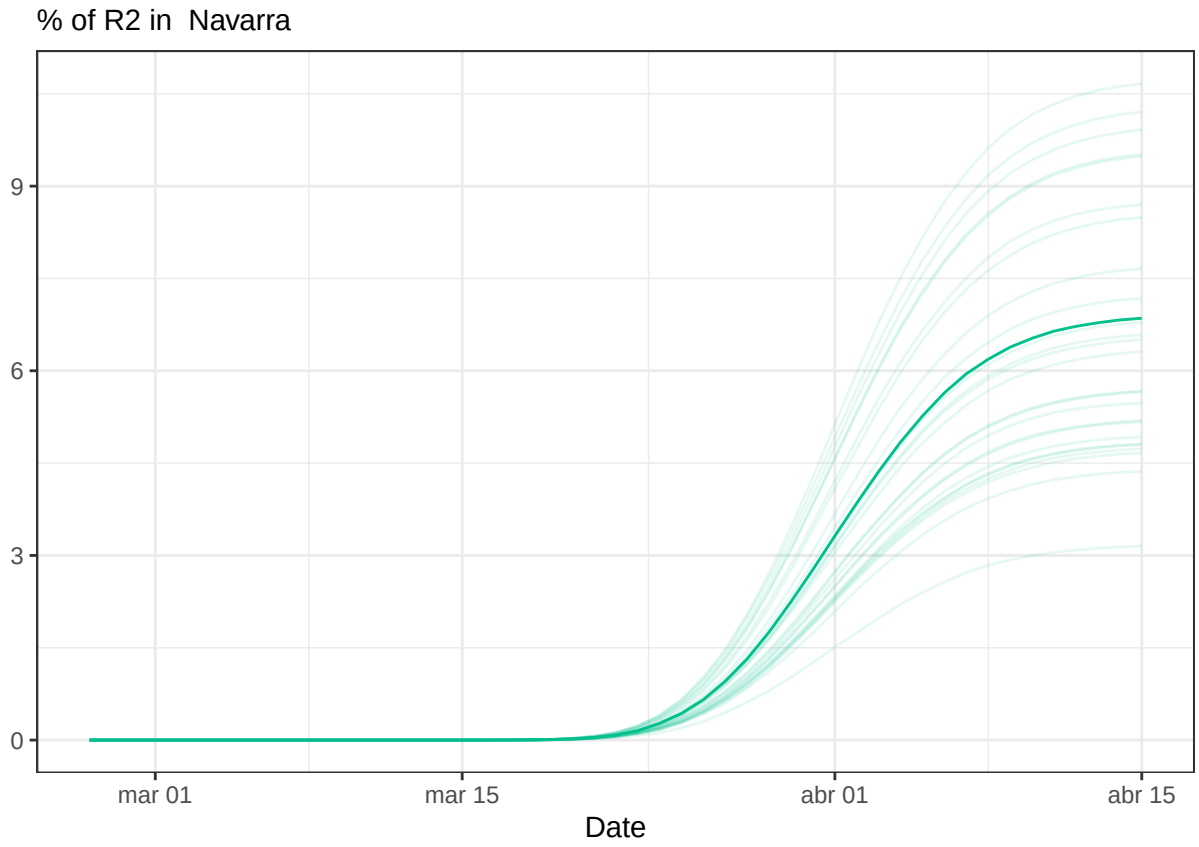

```
i3=i3_raw[aceptados$V1,]
i3$dis=aceptados$dis

i3ord=gather(i3,key="dia",value="cantos",-V1,-dis)
i3ord$dia=as.Date(i1ord$dia)

ggplot(i3ord) +
  geom_line(aes(dia, 100*cantos/autonomias$Población[i],group= V1,alpha=1/((1+dis)^100)),colour='#00C08
  scale_x_date() +
  theme_bw() +
  labs(x = "Date", y = "",
       subtitle = paste("% of I3 in ", autonomias$Comunidad[i]))
```




```
r1=r1_raw[aceptados$V1,]
r1$dis=aceptados$dis

r1ord=gather(r1,key="dia",value="cantos",-V1,-dis)
r1ord$dia=as.Date(r1ord$dia)

ggplot(r1ord) +
  geom_line(aes(dia, 100*cantos/autonomias$Población[i],group= V1,alpha=1/((1+dis)^100)),colour='#00C08
  scale_x_date() +
  theme_bw() +
  labs(x = "Date", y = "",
       subtitle = paste("% of R1 in ", autonomias$Comunidad[i]))
```




```
r2=r2_raw[aceptados$V1,]
r2$dis=aceptados$dis

r2ord=gather(r2,key="dia",value="cantos",-V1,-dis)
r2ord$dia=as.Date(r2ord$dia)

ggplot(r2ord) +
  geom_line(aes(dia, 100*cantos/autonomias$Población[i],group= V1,alpha=1/((1+dis)^100)),colour='#00C08
  scale_x_date() +
  theme_bw() +
  labs(x = "Date", y = "",
       subtitle = paste("% of R2 in ", autonomias$Comunidad[i]))
```


% of R2 in Navarra
9
6
3
0
mar 01
mar 15
abr 01
abr 15
Date