Casos Nuevo Coronavirus

Datos de Miércoles

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Week 1

```
if(!require("pacman")) install.packages("pacman")
p_load("tidyverse", "janitor", "rgdal", "sf", "ggtext", "showtext",
       "ggthemes", "lubridate")
```

```
# ggplot theme updates
font_add_google("Oswald", "Oswald")
```

```
# descarga el repositorio
download.file(url = "https://github.com/CSSEGISandData/COVID-19/archive/master.zip",
              destfile = "COVID-19-master.zip")

# descomprime
unzip("COVID-19-master.zip")

# elimina .zip
unlink("COVID-19-master.zip", recursive = TRUE)
```

```
confirmed_data <- "COVID-19-master/time_series/time_series_2019-ncov-Confirmed.csv"

ncov_confirmed <- read_csv(confirmed_data)

province_name <-  ncov_confirmed %>%
    clean_names() %>%
    select(province_state, country_region, lat, long) %>%
    filter(country_region == "Mainland China")

updated <- ncov_confirmed[, ncol(ncov_confirmed)] %>%
    clean_names() %>%
    setNames("updated")

china_ncov_confirmed <- ncov_confirmed %>%
    clean_names() %>%
    select(province_state, country_region) %>%
    cbind(updated) %>%
    as_tibble() %>%
    filter(country_region == "Mainland China")  %>%
    mutate(total = sum(updated)) %>%
    select(province_state, country_region, total, updated)

confirmed_updated <- china_ncov_confirmed %>%
    select(updated) %>%
```

```
    summarise(sum(updated)) %>%
    pull() %>%
    format(nsmall = 0, big.mark = ",")
```

```
deaths_data <-  "COVID-19-master/time_series/time_series_2019-ncov-Deaths.csv"

ncov_deaths <- read_csv(deaths_data)

deaths_updated <- ncov_deaths %>%
    clean_names() %>%
    filter(country_region == "Mainland China") %>%
    select(tail(names(.), 1)) %>%
    setNames("updated") %>%
    summarise(sum(updated)) %>%
    pull() %>%
    format(nsmall = 0, big.mark = ",")
```

```
# https://gadm.org/download_country_v3.html
shp_file <- paste0(getwd(), "/gadm36_CHN_shp/gadm36_CHN_1.shp")

map <- readOGR(shp_file)

map <- spTransform(map, CRS = CRS("+init=epsg:4326"))

map_data <- data.frame(id = rownames(map@data), map@data)

map_df <- fortify(map) %>%
    merge(map_data, by="id") %>%
    select(long, lat, group, NAME_1) %>%
    rename(province_state = NAME_1) %>%
    left_join(china_ncov_confirmed, by = "province_state") %>%
    mutate(contagion = case_when(
                is.na(updated)  ~ "Sin contagio",
                updated > 1 & updated <= 99 ~ "10-99",
                updated > 100 & updated <= 999 ~ "100-999",
                updated > 1000 & updated <= 9999 ~ "1,000-9,999",
                updated >= 10000 ~ "10,000 o más"
            ),
            contagion = factor(contagion,
                        levels = c("Sin contagio",
                                   "10-99",
                                   "100-999",
                                   "1,000-9,999",
                                   "10,000 o más")))
```

```
month_name <- month(today(), label = TRUE, abbr = FALSE) %>% stringr::str_to_title()
day_today <- day(today())
year_today <- year(today())

legend_title <- paste0("Casos confirmados por el Novel Coronavirus (COVID-19) en China, ",
                       day_today, " ", month_name, " del ", year_today)

mapa_ncov <- ggplot() +
    geom_polygon(
```

```
    data = map_df,
    aes(x = long, y = lat, group = group, fill = contagion)
)  +
geom_path(
    data = map_df,
    aes(x = long, y = lat, group = group, fill = contagion),
    color = "grey70", size = 0.1
) +
geom_richtext(
    aes(x = 80,
        y = 22,
        label = paste0("Confirmado <span style='color:#9d1e1e'>",
                       confirmed_updated,
                       "</span> casos &<br><span style='color:#9d1e1e'>",
                       deaths_updated,
                       "</span> muertes en China")),
    family = "Oswald",
    color = "grey20",
    size = 7,
    fontface = "bold",
    label.color = NA
) +
geom_richtext(
    aes(x = 132,
        y = 35,
        label = paste0("Outbreak originado en<br>",
                       "<span style='color:#870101'>Wuhan</span>,",
                       " provincia de Hubei")),
    family = "Oswald",
    color = "grey20",
    size = 4,
    fontface = "bold",
    label.color = NA
) +
coord_map("bonne", lat0 = 50) +
scale_x_continuous(expand = c(0.02, 0.02),
                   limits = c(70, 135)) +
scale_y_continuous(expand = c(0.02, 0.02),
                   limits = c(17, 57)) +
scale_fill_manual(values = c("#f5f5f5", "#efe3dc", "#e7bb9d",
                             "#d2726a", "#ba0101"),
                  name = legend_title) +
scale_color_manual(values = c("#dcdcdc", "#dfc7b9", "#dd9f74",
                              "#c64d43", "#870101"),
                   name = legend_title) +
guides(fill = guide_legend(title.position = "top",
                           title.hjust = 0.5,
                           nrow = 1,
                           label.position = "bottom")) +
labs(caption = "@GaboCg | Fuente: CSSE at John Hopkins University") +
theme_void() +
theme(plot.caption = element_text(family = "Oswald",
                                  size = 10,
```

```
                                    color = "grey70",
                                    face = "bold",
                                    hjust = 0.5,
                                    margin = margin(t = -10 , b = 10)),
          legend.position = c(0.5, 0.925),
          legend.key.height = unit(0.5, "lines"),
          legend.key.width = unit(8.0, "lines"),
          legend.text = element_text(family = "Oswald",
                                     color = "grey40",
                                     size = 10),
          legend.title = element_text(family = "Oswald",
                                      face = "bold",
                                      color = "grey20",
                                      size = 12),
          plot.margin = margin(0, 0, 0, 0)) +
    geom_segment(
        aes(x = 127, y = 35, xend = 112, yend = 31),
        arrow = arrow(length = unit(0.03, "npc")),
        lineend = "round",
        color = "white",
        size = 0.1
    ) +
    geom_segment(
        aes(x = 127, y = 35, xend = 112, yend = 31),
        arrow = arrow(length = unit(0.03, "npc")),
        lineend = "round",
        color = "black",
        size = 0.50
    )
```

```
ggsave(here::here("plots", "2020_01", "2020_01_china_ncov.pdf"),
       plot = mapa_ncov, width = 14, height = 8.5, device = cairo_pdf)
```