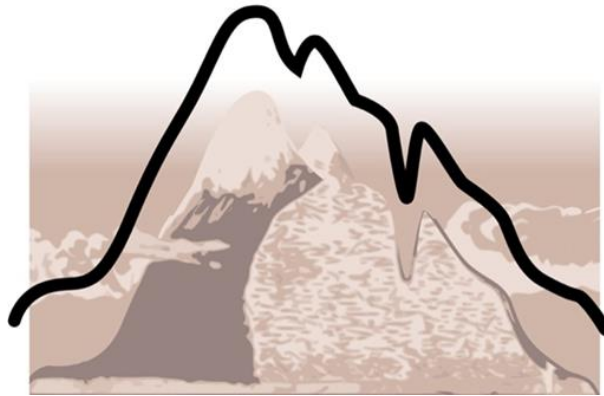




# The public health impact of COVID-19 in Latin America

Ac. Dr. José P. Arcos  
Montevideo, Uruguay



*josepedroarcos@anm.org.uy*

# The public health impact of COVID-19 in Latin America

---

1. Characteristics of the health system in Uruguay
2. Current Situation of COVID in Uruguay
3. Main health policy actions related to COVID
4. What has worked well
5. What should be improved
6. Main social and economic impacts
7. Future steps

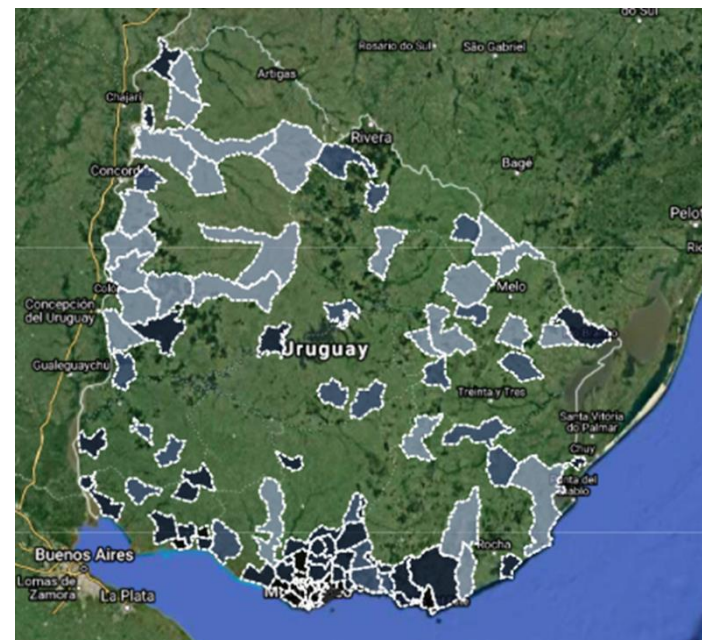


# Uruguay

## Population density

---

| Area                                     | 176,215 km <sup>2</sup> |
|------------------------------------------|-------------------------|
| Population                               | 3.353.912               |
| Population density (hb/km <sup>2</sup> ) | 20 (5 – 2500)           |



# Uruguay

## Socio-economic characteristics

---

| GDP per capita (US dollars PPP) | 23.581 |
|---------------------------------|--------|
| Poverty rate (%)                | 8.8    |
| Unemployment (% , ILO)          | 8.7    |
| Informal employment (%NA)       | 23,7   |
| Income share by richest 10%     | 29,7   |
| HDI index                       | 0.808  |
| Access to basic sanitation (%)  | 97     |
| Access to drinking water (%)    | 99     |
| Literacy rate (%)               | 98,7   |

*UNPD 2019 Human Development Report*

<https://data.worldbank.org/>

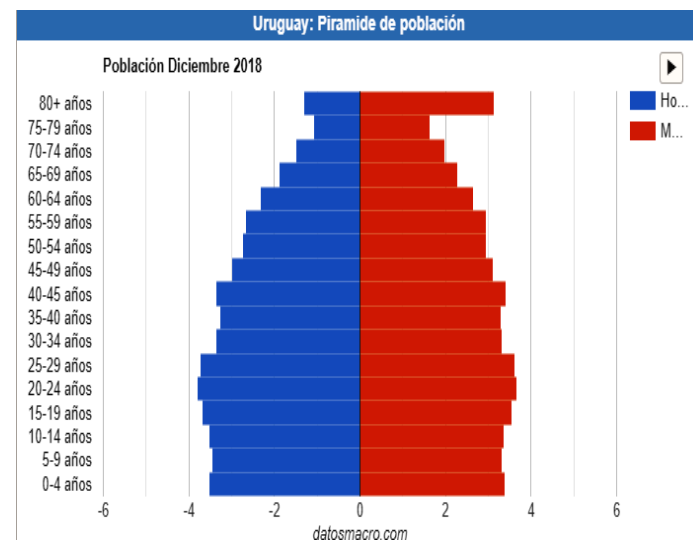
*Instituto Nacional de Estadística* [www.ine.gub.uy](http://www.ine.gub.uy)

*Health at a Glance: Latin America and the Caribbean 2020, OECD.*

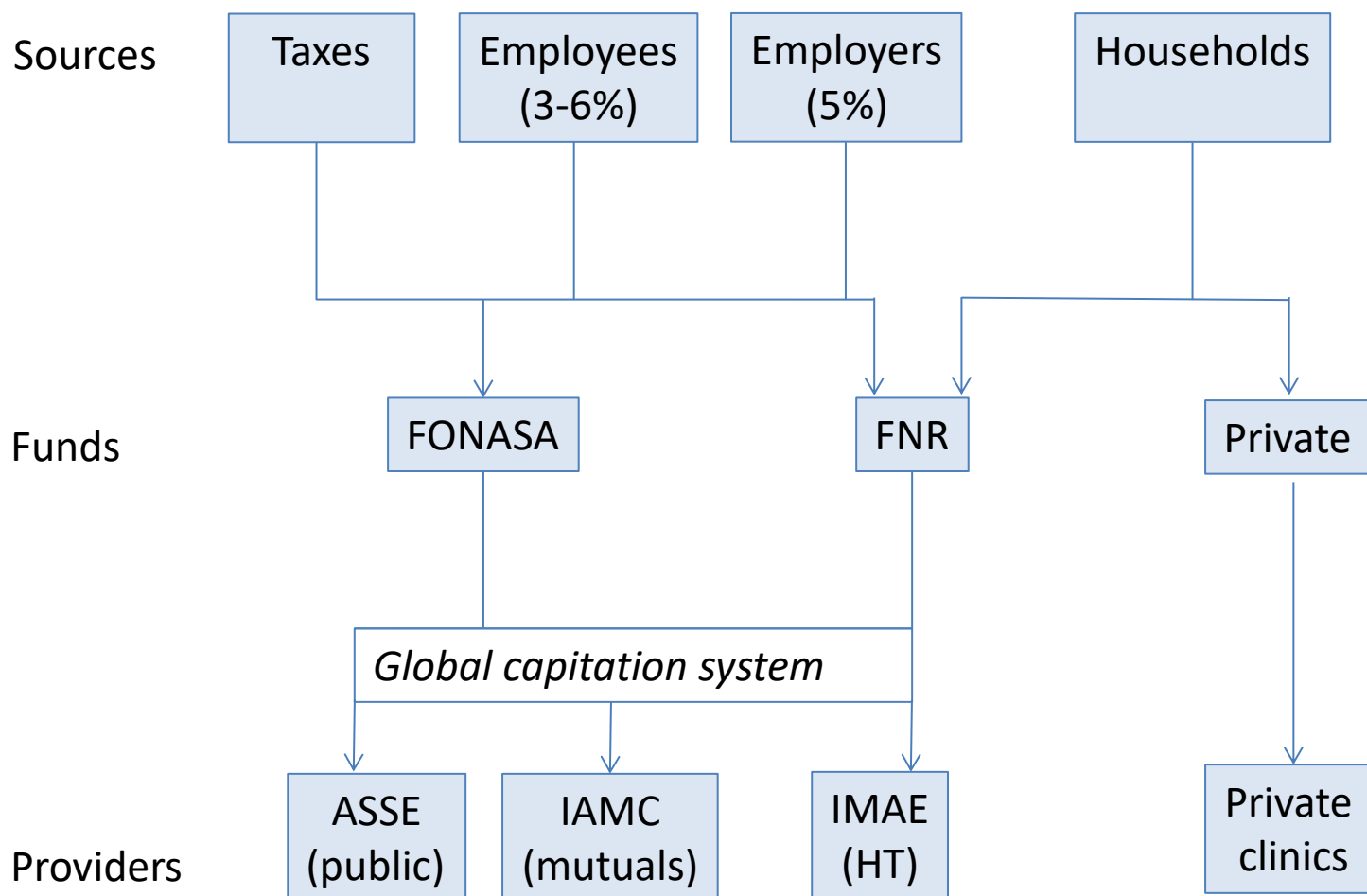
# Uruguay

## Health risk factors

|                       | Uruguay | OECD  |
|-----------------------|---------|-------|
| Life expectancy (y)   | 78      | 80,7  |
| Population > 65 y (%) | 20      | 17,4  |
| Obesity (a.s. %)      | 40      | 19,5  |
| Diabetes (%)          | 8       | 9,7   |
| Hypertension (%)      | 30      | 21,6  |
| Death rate CV disease | 160     | ---   |
| Smoking (%)           | 20,4    | 18    |
| Alcohol (L/cap)       | 11      | 8,9   |
| Vaccinated < 1 y (%)  | 91-97   | 91-95 |

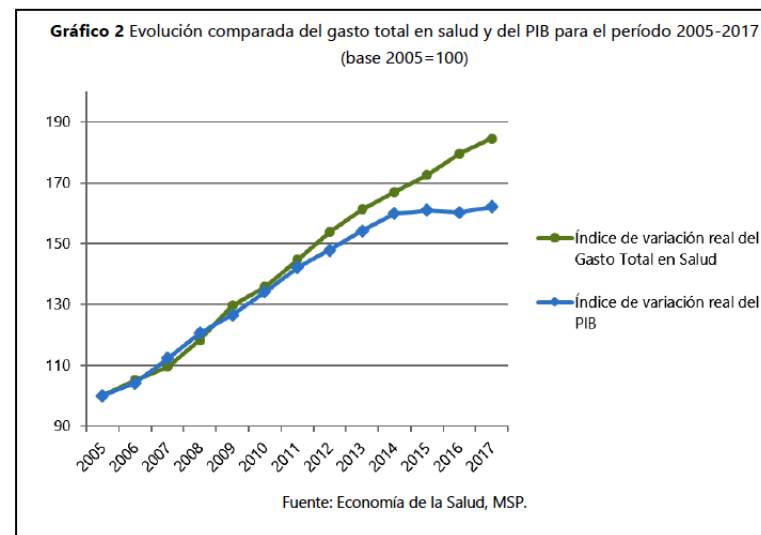


# 1. Health system



# Uruguay National Health System (SNIS)

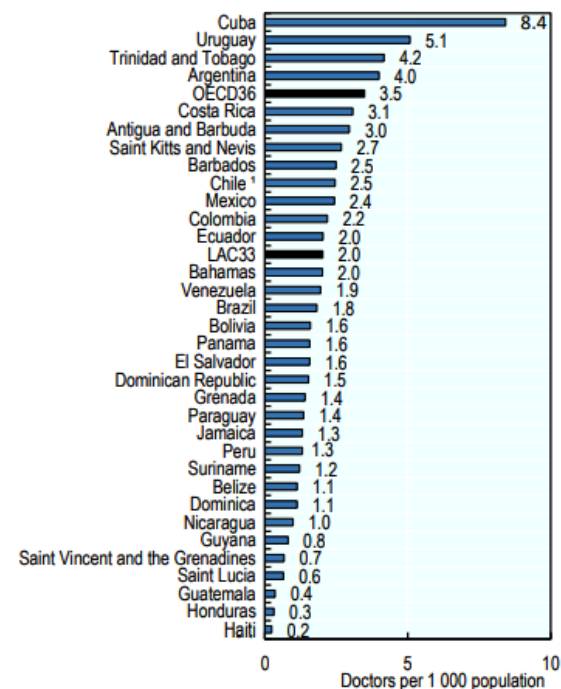
|                                | Uy   | OECD |
|--------------------------------|------|------|
| Population covered (%)         | 97   | 98,4 |
| Public (%)                     | 40   |      |
| Mutuals and private (%)        | 60   |      |
| Health Care Expenditure (%GDP) | 9,4  | 8,8  |
| HCE (dol per capita, PPP)      | 2102 | 3994 |
| OOP Health Expenditure (%)     | 17,5 | 21   |



# Uruguay National Health System (SNIS)

|                           | Uy  | Upscaled | OECD |
|---------------------------|-----|----------|------|
| Hospital beds (per 1k hb) | 2,8 |          | 4,7  |
| ICU beds (per 100k hb)    | 21  | 33       | --   |
| Ventilators (per 100k hb) | 18  | 29       | --   |
| Physicians (per 1k hb)    | 5,1 |          | 3,5  |
| Nurses (per 1k hb)        | 7   |          | 8,8  |

Figure 5.1. Doctors per 1 000 population, 2017 or latest year available



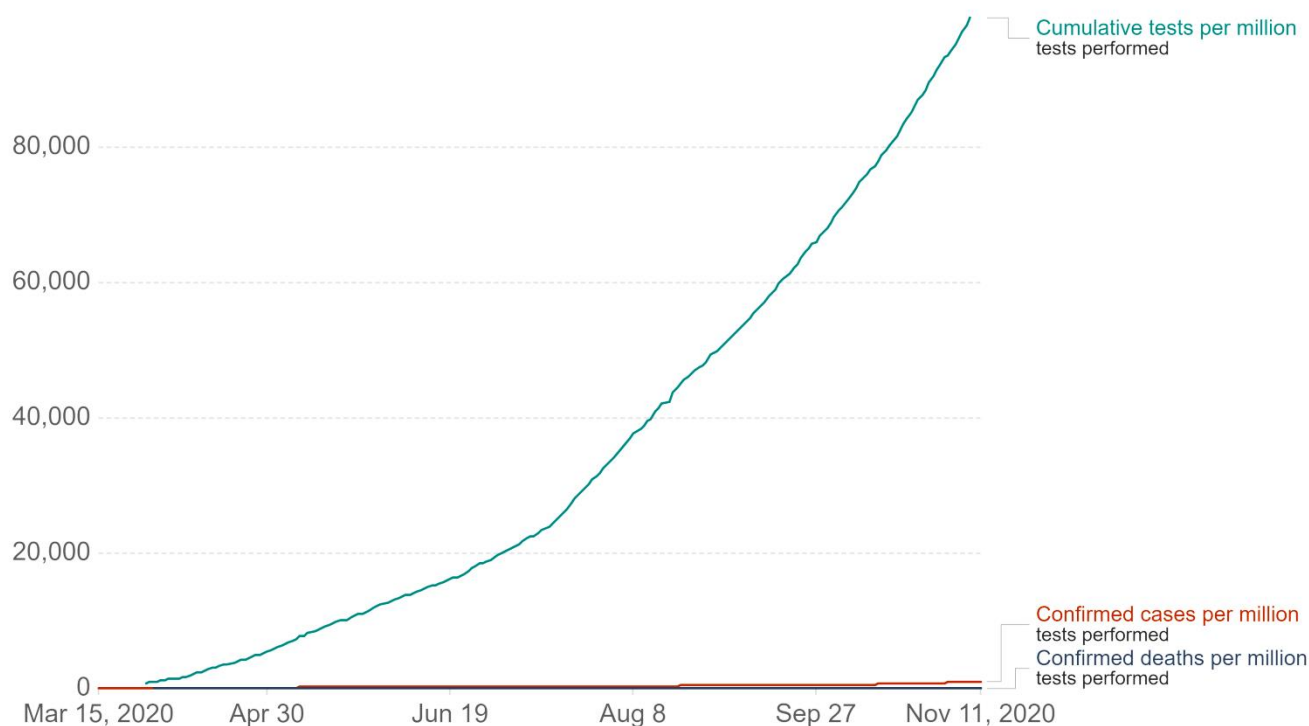
## 2. Current Situation of COVID in Uruguay

### Cumulative PCR tests

#### Cumulative COVID-19 tests, confirmed cases and deaths per million people, Uruguay

Our World  
in Data

The confirmed counts shown here are lower than the total counts. The main reason for this is limited testing and challenges in the attribution of the cause of death.



Source: Official data collated by Our World in Data; European CDC – Situation Update Worldwide

OurWorldInData.org/coronavirus • CC BY

# Current Situation of COVID in Uruguay

## Positive PCR tests

### The share of daily COVID-19 tests that are positive

Shown is the rolling 7-day average. The number of confirmed cases divided by the number of tests, expressed as a percentage. Tests may refer to the number of tests performed or the number of people tested – depending on which is reported by the particular country.

Our World  
in Data



Source: Official data collated by Our World in Data

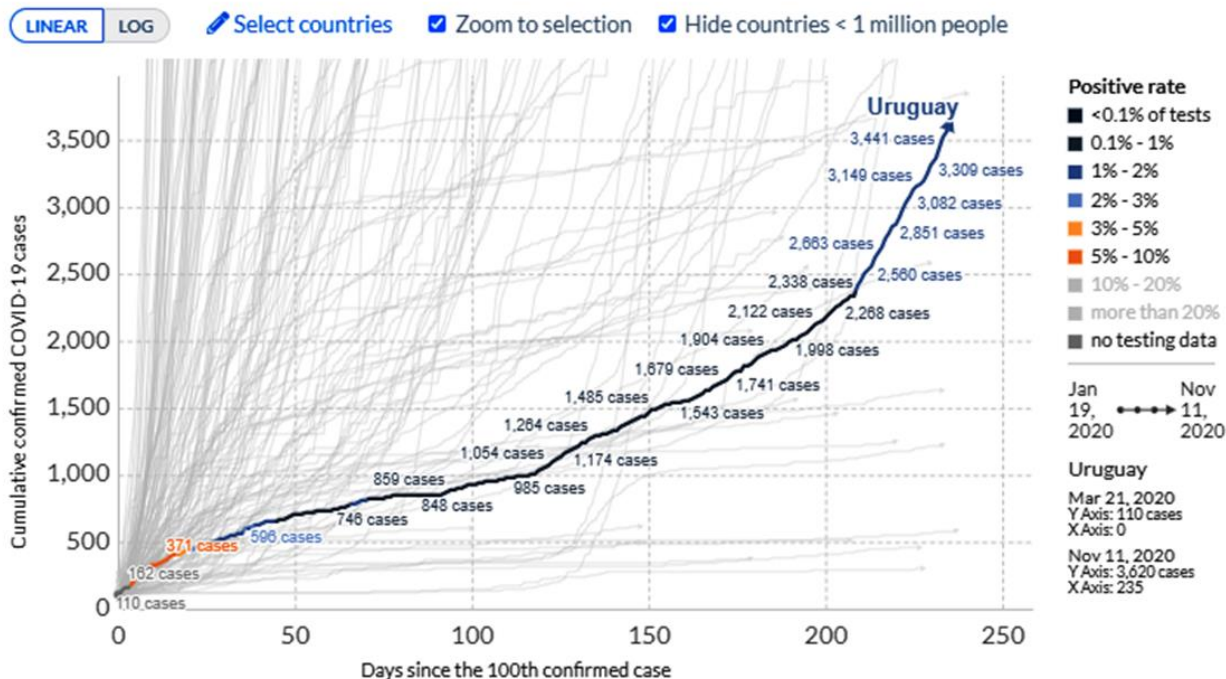
CC BY

# Cumulative PCR confirmed cases

## Cumulative confirmed COVID-19 cases

The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.

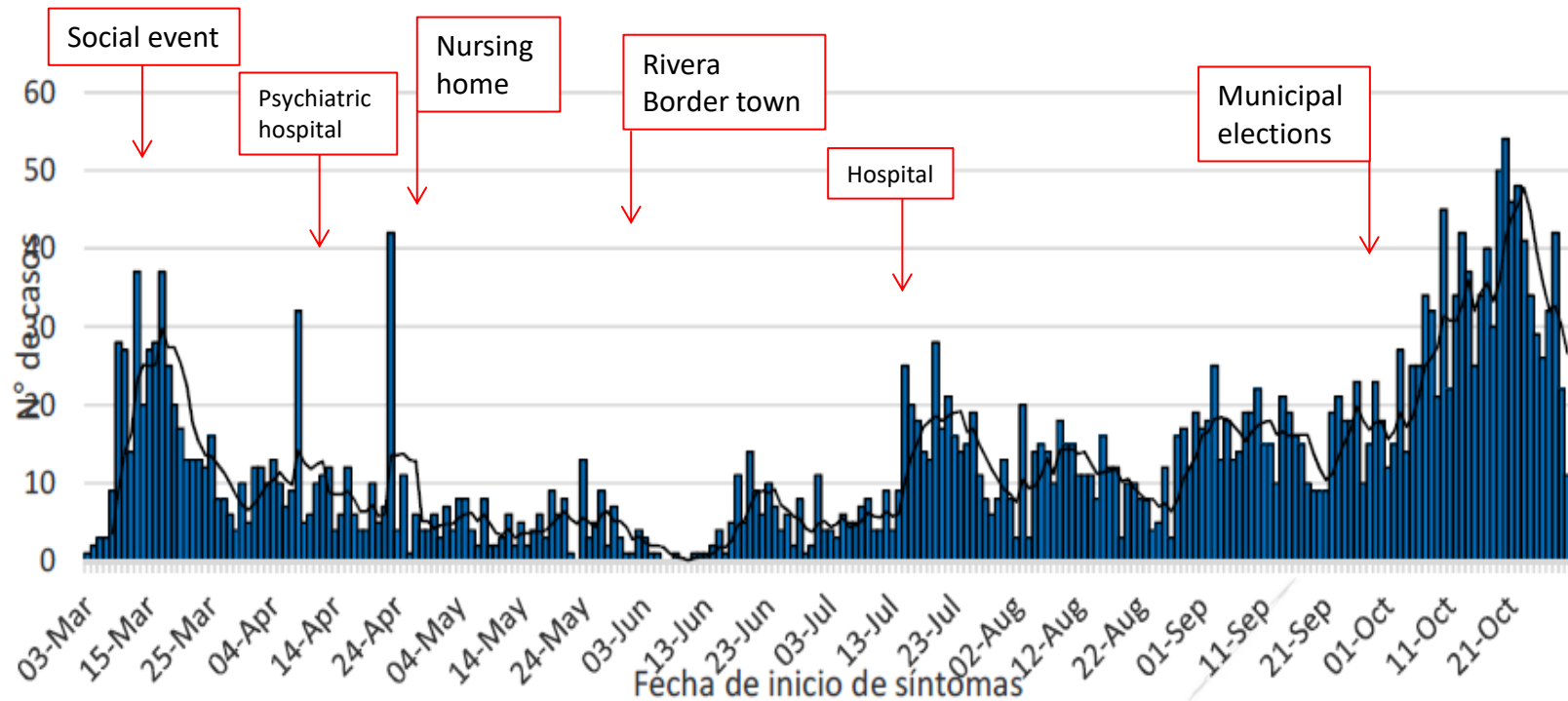
Our World  
in Data



Source: European CDC - Situation Update Worldwide - Last updated 11 November, 11:06 (London time), Official data collated by Our World in Data  
CC BY

Jan 19, 2020 Nov 11, 2020

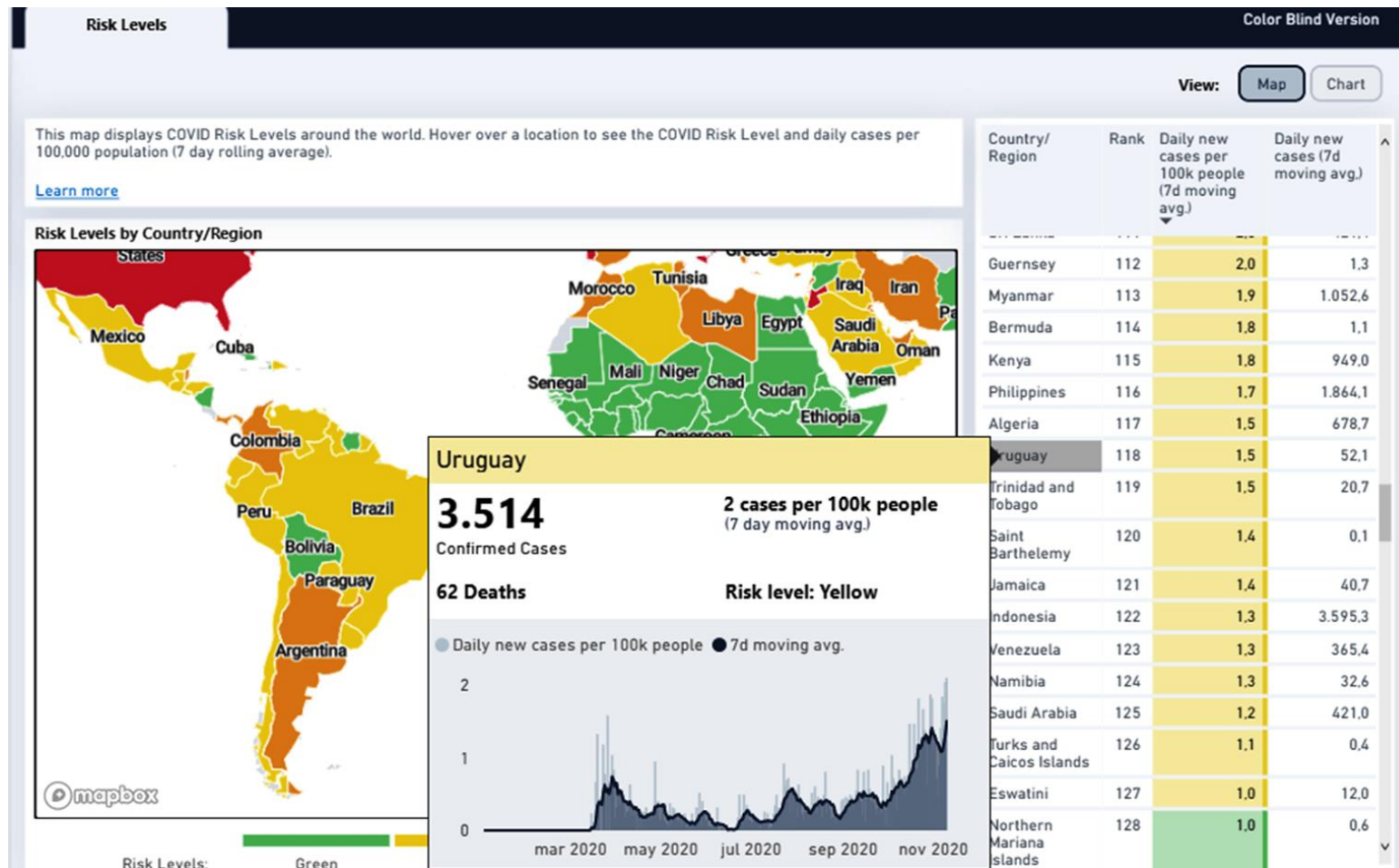
# Daily new cases and outbreaks



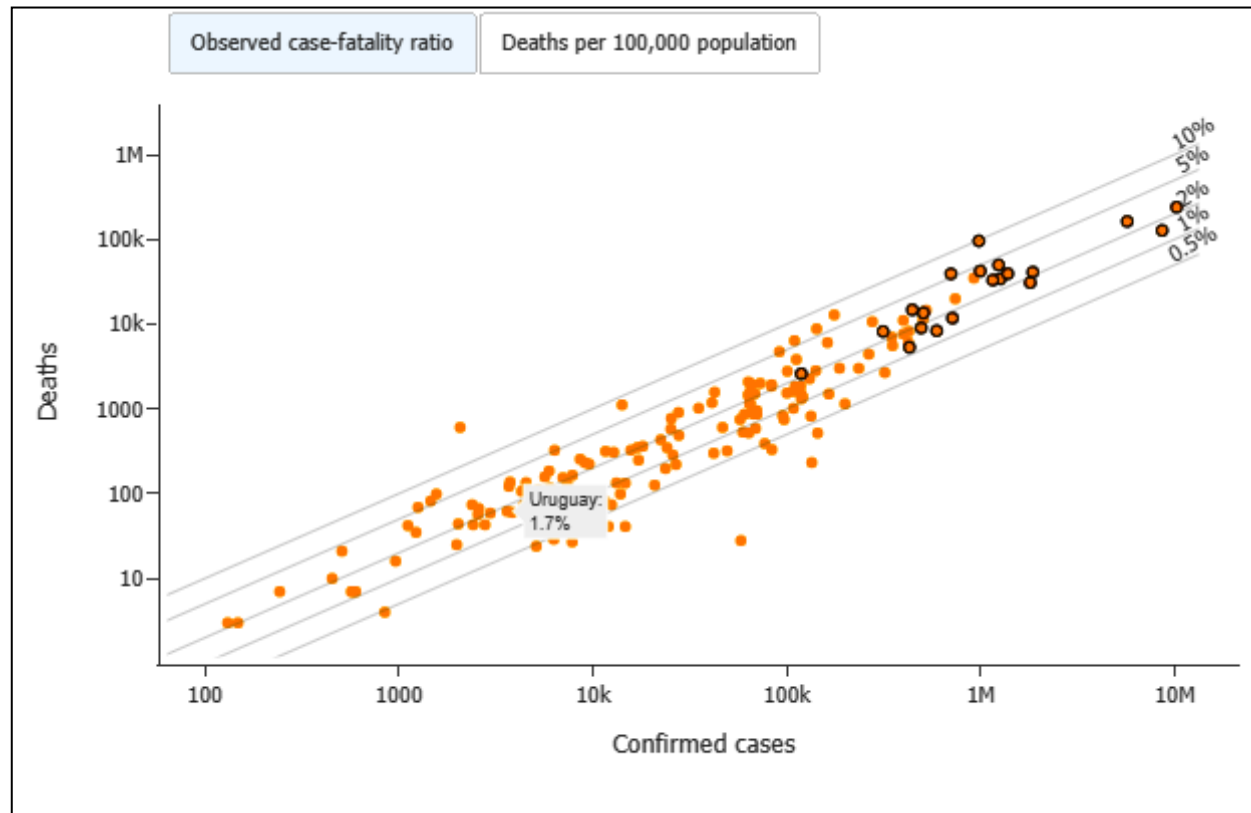
Ministerio  
de Salud Pública

DIRECCIÓN GENERAL DE LA SALUD  
DIVISIÓN EPIDEMIOLOGÍA  
Departamento de Vigilancia en Salud

# COVID Risk Level map



# COVID 19 case – fatality ratio



| Active cases Nov 11th | ICU beds | Ventilators |
|-----------------------|----------|-------------|
| 524                   | 1100     | 980         |

<https://coronavirus.jhu.edu/data/mortality>

# 3. Main health policy actions

## First Stage

---

- **March 3-6:** Four cases arrived from Milano, Italy
- **March 13th:**

### **Mitigation and containment**

- Health Emergency declaration
- Borders were closed to non-Uruguayan residents
- Quarantine for travelers coming from at-risk countries
- Suspension of public events
- Schools and universities were closed to face-to-face assistance.
- “Stay at home” directive (no mandatory lock down)
- Exhortation to >65y to comply with preventive quarantine
- Hygiene measures, face mask and sustained physical distance of 2 meters.
- Responsible use of public spaces

# Main health policy actions

## Second Stage

---

- **April 16<sup>th</sup>:**
- **Honorary Scientific Advisory Group (GACH) 55 *pro bono* experts**
  - Exclusively advisory role
  - Health planning and mathematical models
  - No political interference
- **Main duty** is to advise the government:
  - on the management of the pandemic
  - how to transit to the “new normal”:
    - Resume activities following these criteria:
      - progressiveness
      - regulation
      - monitoring
      - evidence-based

## Consortium:

Universidad de la República  
Institut Pasteur de Montevideo  
ATG Biotec

Funds: ANII, IDB, MSP



- local development and manufacturing of PCR tests
- sequenced the first complete genomes of SARS COV 2 from 10 patients with COVID-19 in Uruguay.
- local development of LAMP and serologic tests

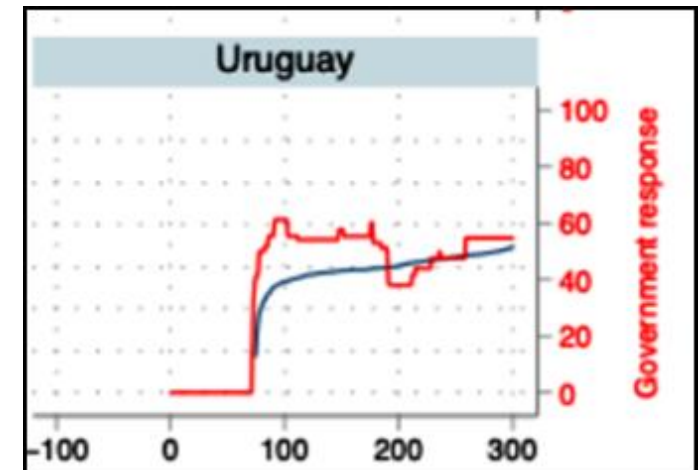
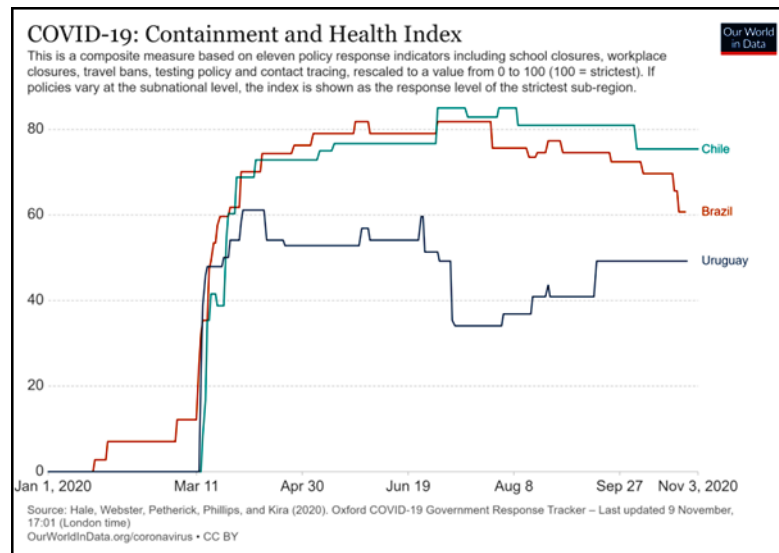
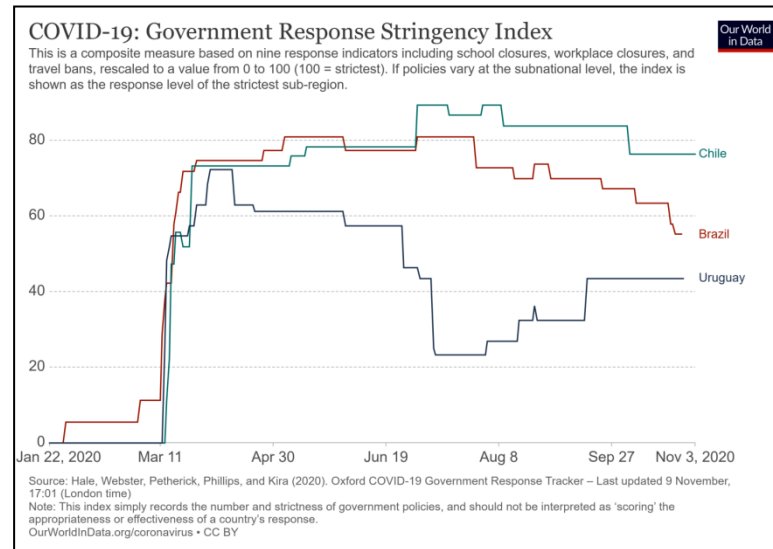


# Health policy actions

---

- Massive testing
  - (from 30/day, in March, to 4000/day in November)
- Extensive tracing
- Home assistance was encouraged
- Telephone and telemedicine is generally available
- Clear cut protocols for hospital consultations
- Surgical procedures restricted to emergencies and oncology

# Timing and Stringency of measures



## 4. What has worked well

---

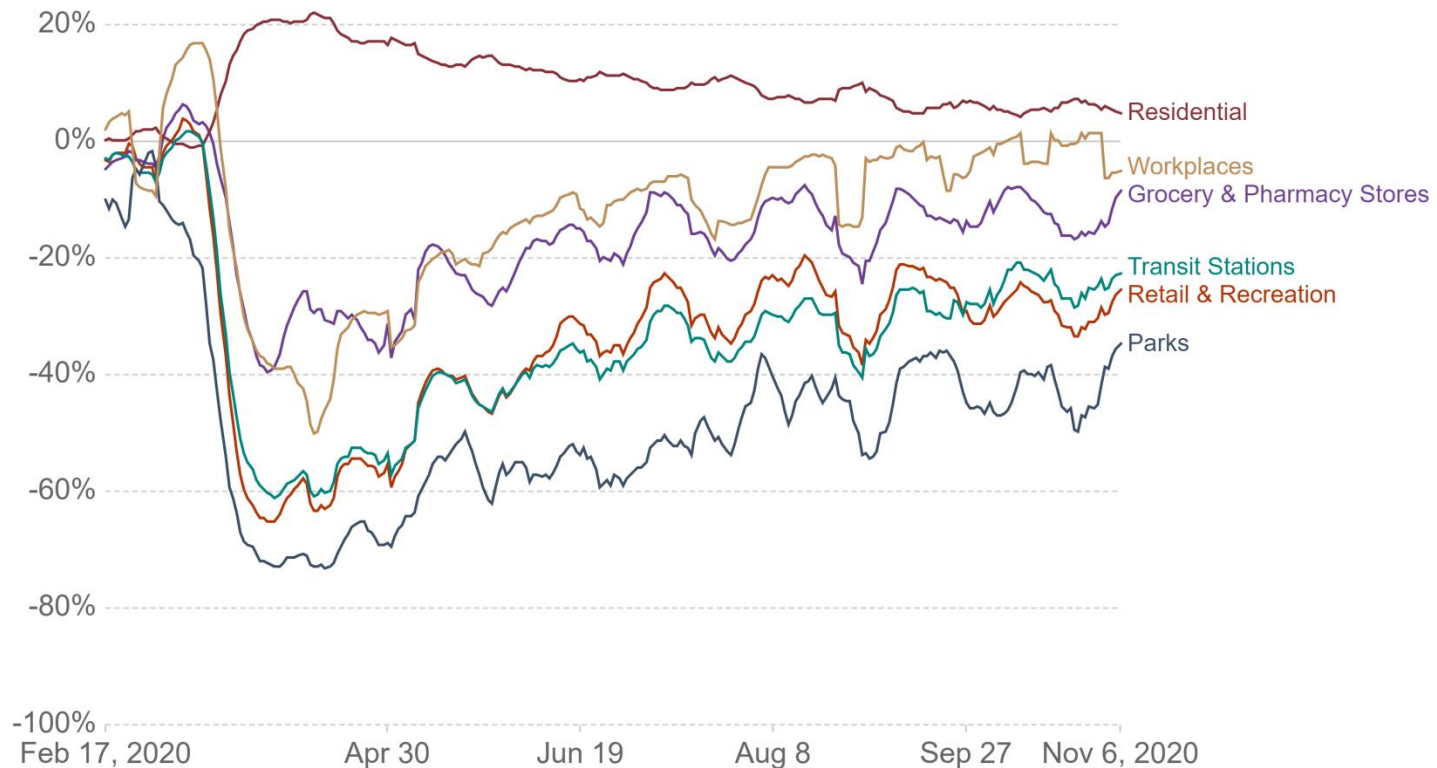
- Border closure and isolation measures taken immediately and voluntarily carried out by the population.
- Test availability rapidly developed
- Decisions taken by the political system in conjunction with the scientific community.
- Progressive opening of schools and resuming public activity.

# Community Mobility Trends

## How did the number of visitors change since the beginning of the pandemic?, Uruguay

Our World  
in Data

The data shows how visitors to (or time spent in) categorized places change compared to baseline days – the median value from the 5-week period from January 3rd to February 6th 2020. This index is smoothed to the rolling 7-day average.



Source: Google COVID-19 Community Mobility Trends – Last updated 9 November, 21:02 (London time)

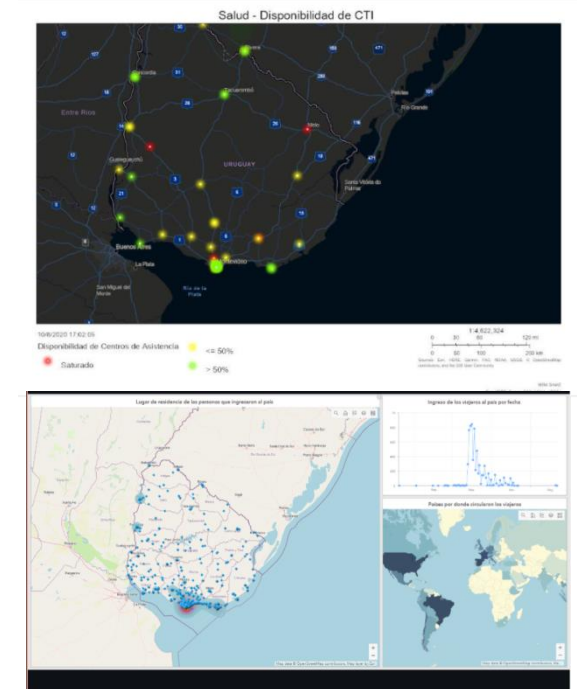
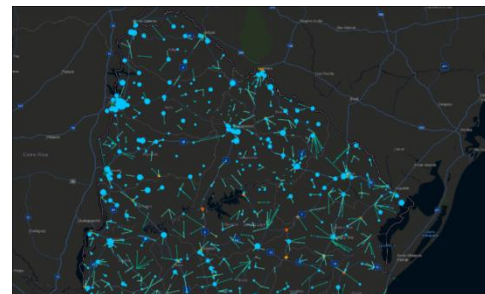
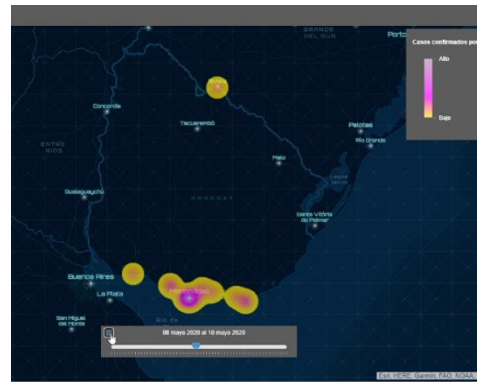
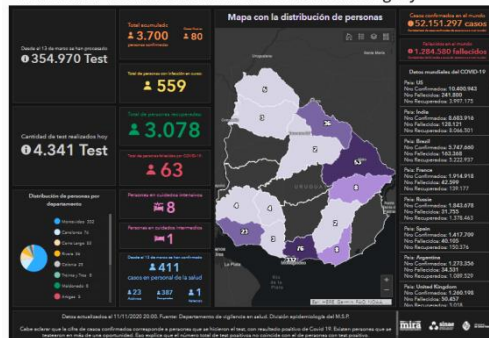
Note: It's not recommended to compare levels across countries; local differences in categories could be misleading.

OurWorldInData.org/coronavirus • CC BY

# What has worked well

- Central coordination of information
- Transparency in the handling of data and trust of the population.

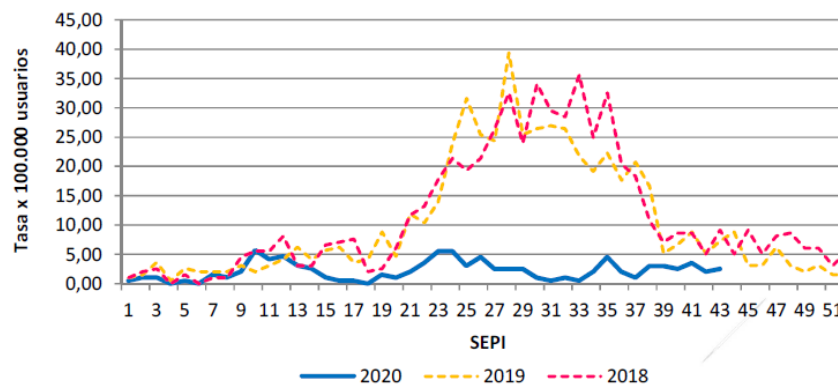
Visualizador de casos coronavirus COVID-19 en Uruguay



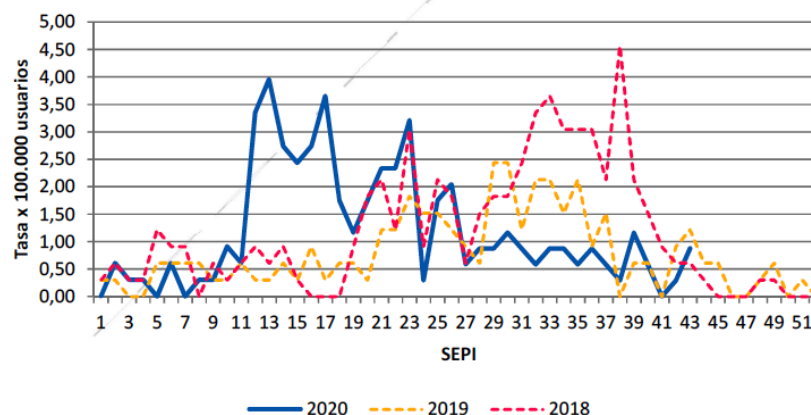
<https://storymaps.arcgis.com/stories/c9b5696c06d043a1b521720c9dd09a0f>

# Severe Acute Respiratory Infections surveillance

**Gráfico 13.** Tasa de infección respiratoria aguda grave en menores de 15 años en centros centinela por semana epidemiológica. Uruguay, 2018-2020.



**Gráfico 14.** Tasa de infección respiratoria aguda grave en personas de 15 años y más en centros centinela por semana epidemiológica. Uruguay, 2018-2020.



## 5. What should be improved

---

**Interventions to limit the spread of the coronavirus also carry negative health effects**

- **Excess deaths:**

Research in low and middle income countries, has found higher mortality rates during economic recessions.

- **Negative health effects:**

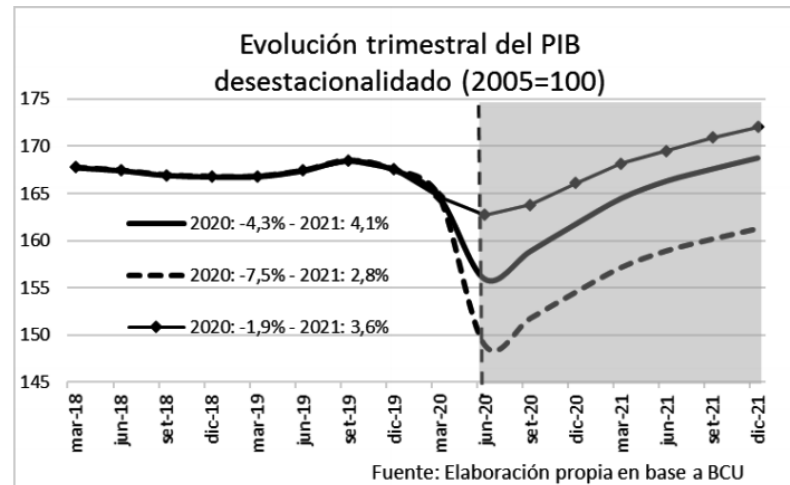
delayed laboratory studies and treatments

- **Effect on vulnerable populations**

low wage workers who depend on their daily income

## 6. Social and economic impact

- Sudden contraction in economic activity
- Negative effects on employment, incomes, poverty and inequality.
- Drop in GDP is expected at 4.7% and an increase of 3.7% in 2021



- Labour market is affected (Unemployment  $\uparrow$  2%)

# Social and economic impact

---

## **Measures designed to protect the most vulnerable population**

- Expanding and facilitating access to unemployment insurance.
- COVID-19 declared as an occupational disease . This covered insurance for dependent workers, medical and non-medical who become infected.
- Sickness leave for private workers over the age of 65 years.
- Coronavirus Fund: discount of 5, 10 and 20 %, public officials salaries
- Deferring payment of taxes and social security contributions for micro and small enterprises.
- Expand Internet access to homes.

## 7. Future steps

---

Summer tourist season



# Future steps

---

- Containment and mitigation to return to “green zone”
  - Early Detection and Isolation
  - Tracing ( <2 days) and Surveillance
  - Implement serological tests for epidemiological purposes
- Borders will remain closed during summer (SARS-CoV-2 has shown a non seasonal behavior)
- Maintain social distancing measures (Christmas celebration, holiday season, beaches)
- Uruguay signed the COVAX Facility (PAHO-WHO) to acquire vaccines for 20% of the population

Thank you !

*josepedroarcos@anm.org.uy*