



Ministerio de  
Salud

Gobierno de Chile

# Effectiveness of the inactivated CoronaVac vaccine against SARS- CoV-2 in Chile

## Preliminary report

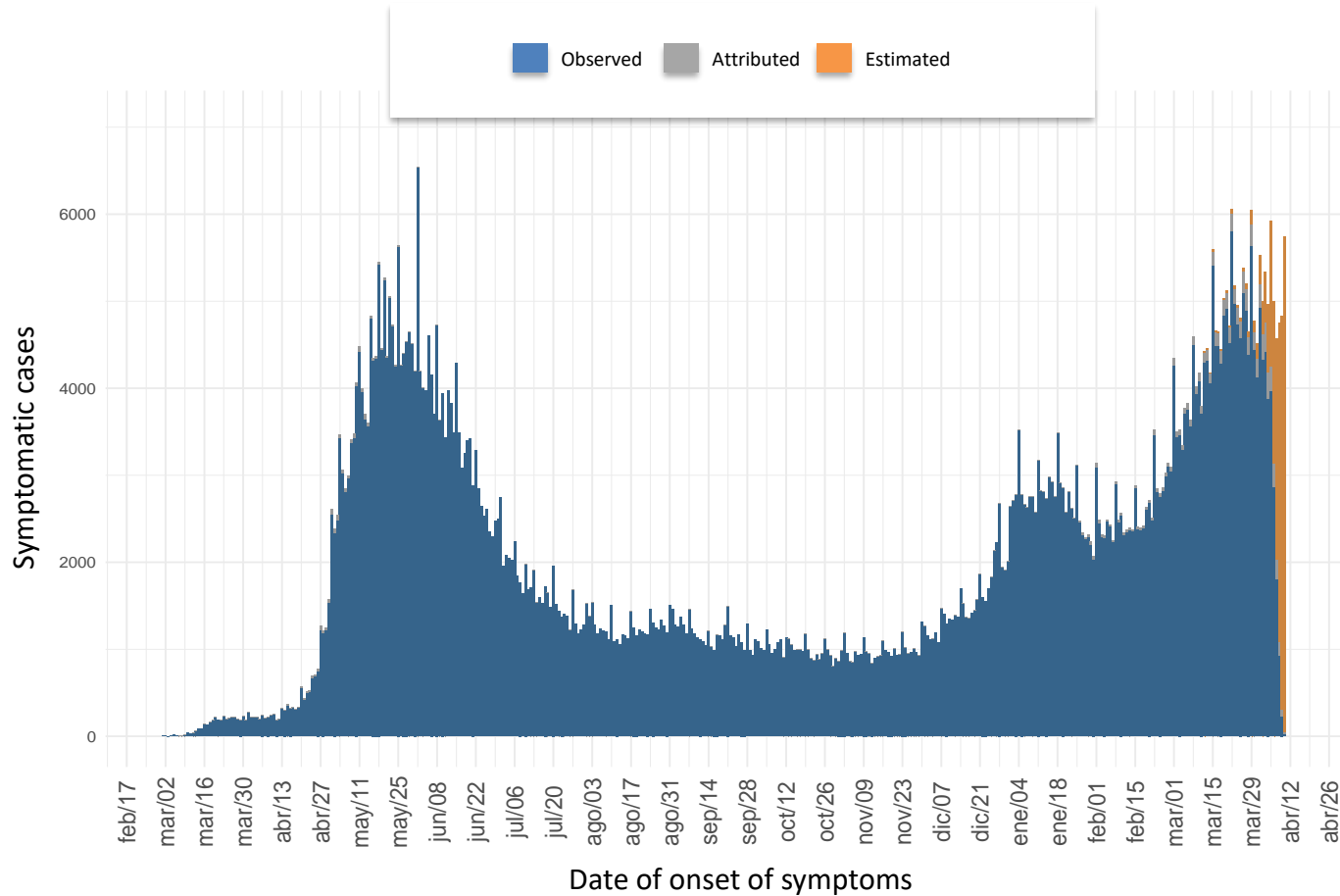
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**Presented by: Dr. Rafael Araos**

Advisor to the Undersecretariat of Public Health  
Researcher Universidad del Desarrollo

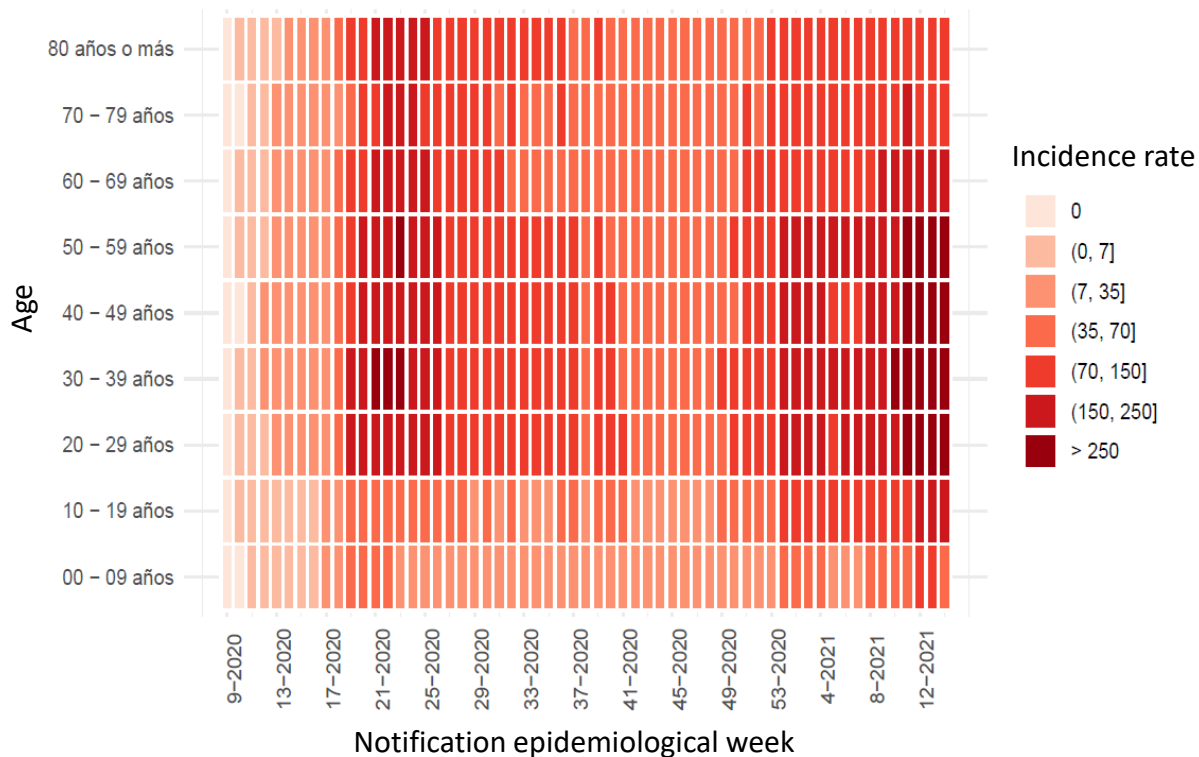
April 16th 2021

# STATUS OF SARS-COV-2 IN CHILE

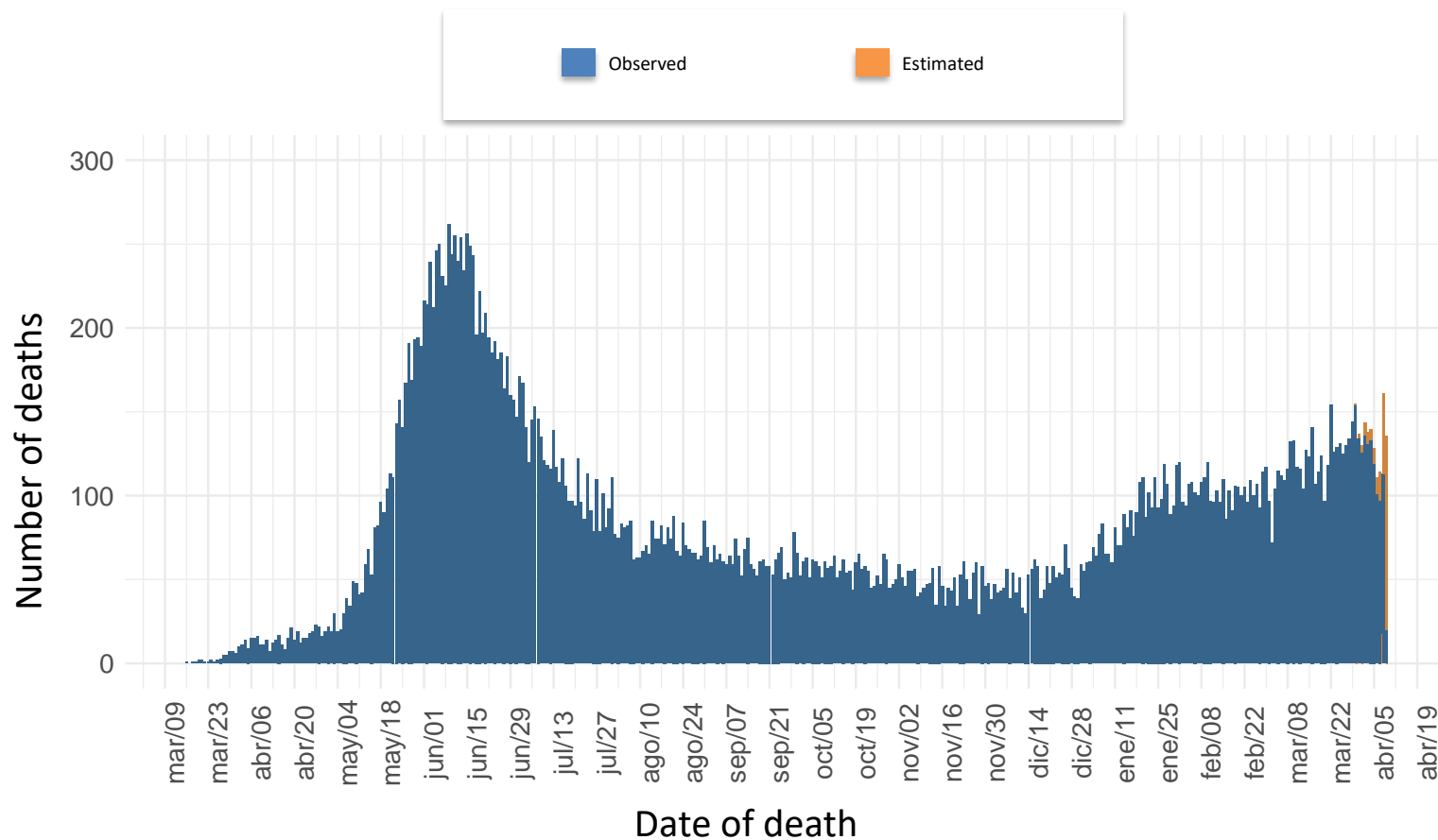


# STATUS OF SARS-COV-2 IN CHILE

Evolution incidence rate per every 100 thousand people  
By age group



# STATUS OF SARS-COV-2 IN CHILE



# PROGRESS OF THE SARS-COV-2 IMMUNIZATION SCHEDULE



## SARS-CoV-2 Vaccination Campaign. Country wide

(Number of vaccines administered)

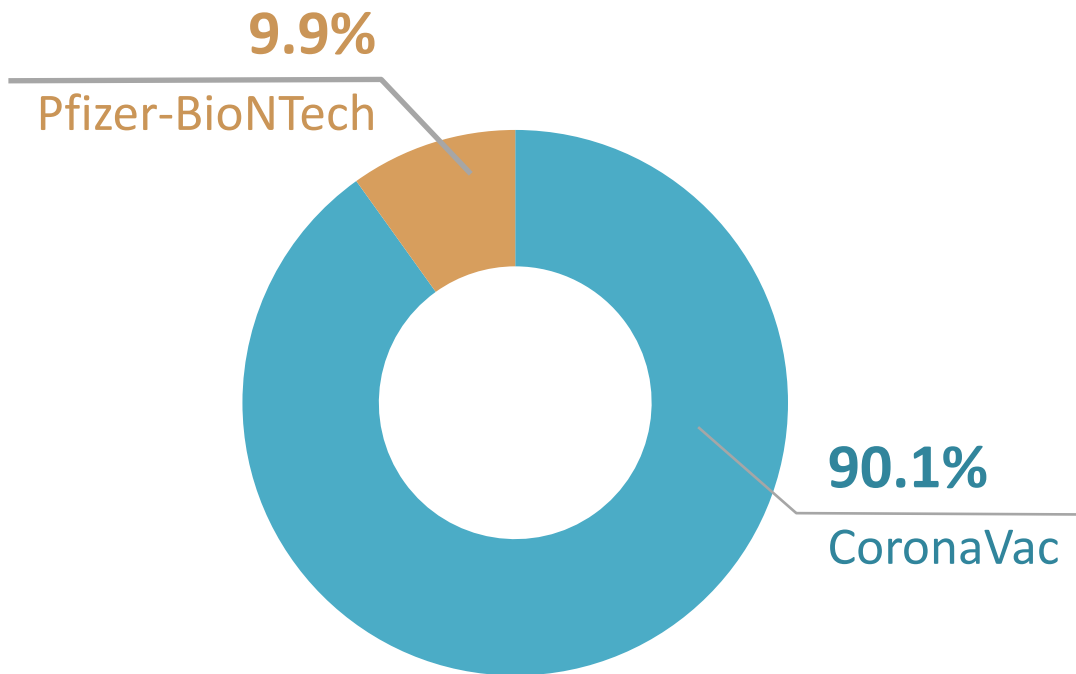
Number of administered doses <b>12,726,959</b>	People vaccinated with 1 dose <b>7,600,908</b>	People vaccinated with 2 doses <b>5,126,051</b>	Target population to be vaccinated <b>15,200,840</b>	Vaccination coverage (people with 1 and 2 doses) <b>33.7%</b>
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Region	% of people with 1 and 2 doses
<b>Total</b>	<b>33.7%</b>
Región de Aisén del Gral. C. Ibáñez del Campo	39.1%
Región de Antofagasta	27.2%
Región de Arica y Parinacota	29.7%
Región de Atacama	30.7%
Región de Coquimbo	32.7%
Región de La Araucanía	37.2%
Región de Los Lagos	35.6%
Región de Los Ríos	38.2%
Región de Magallanes y la Antártica Chilena	44.7%
Región de Ñuble	42.4%
Región de Tarapacá	27.7%
Región de Valparaíso	37.5%
Región del Biobío	37.7%
Región del Libertador B. O'Higgins	37.0%
Región del Maule	36.3%
Región Metropolitana de Santiago	30.7%

## AVANCE DEL PROGRAMA DE INMUNIZACIÓN CONTRA SARS-COV-2

**33.7%**

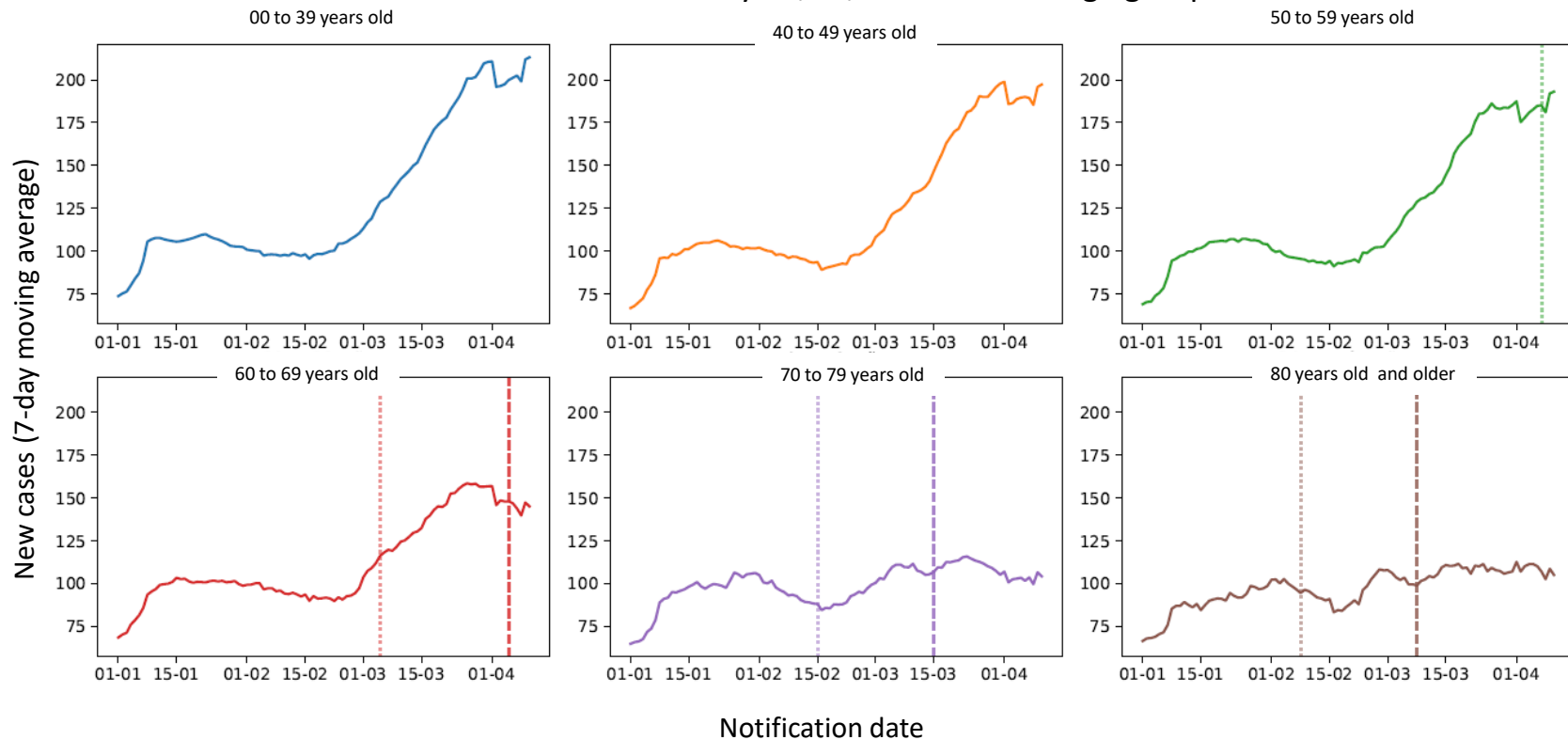
of the target population has  
been fully vaccinated



# CASES IN TIME

## Evolution of new cases (2021)

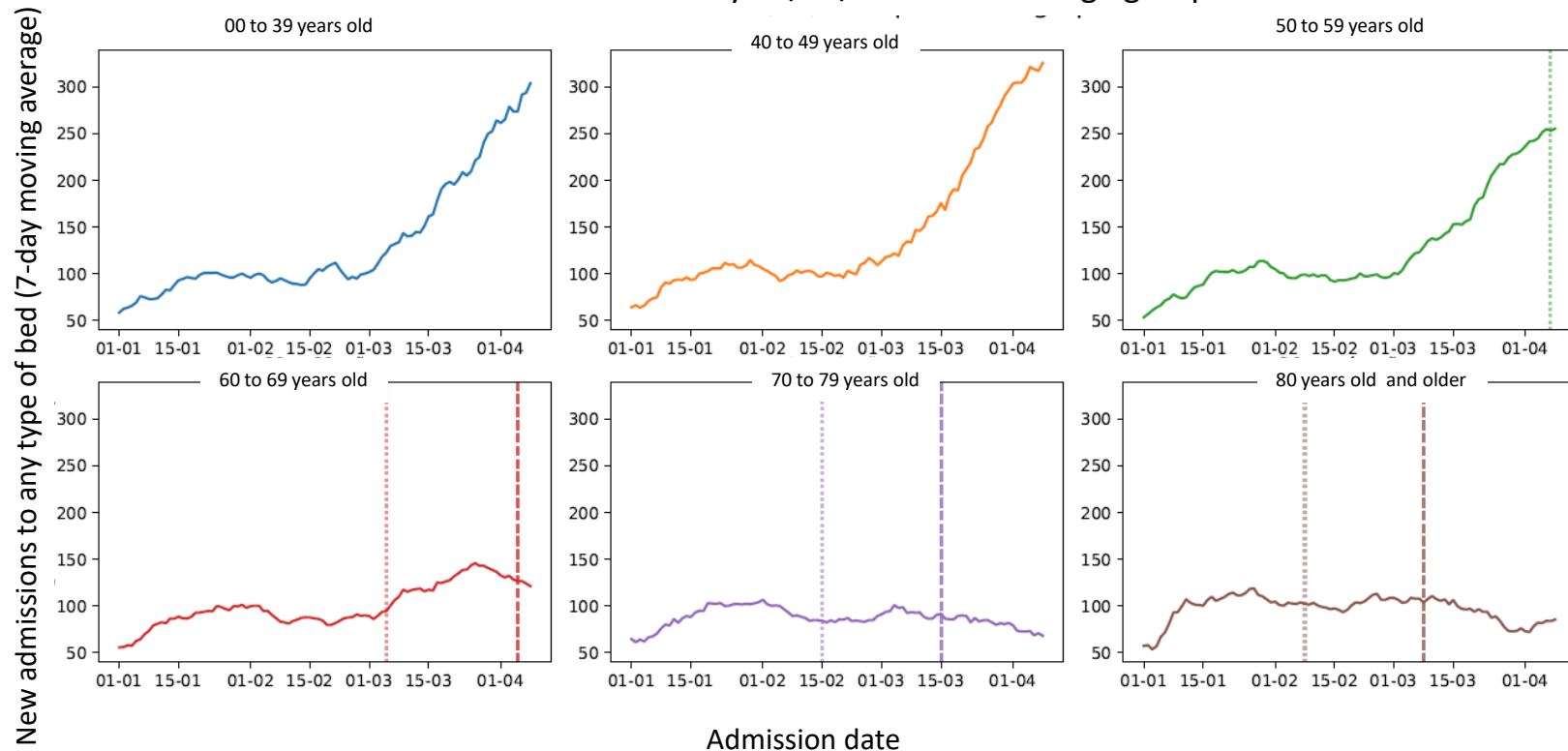
Indexed to 100 by 02/03/2021 for each age group



# HOSPITAL ADMISSIONS IN TIME

## Evolution of new admissions to any type of bed (2021)

Indexed to 100 by 02/03/2021 for each age group

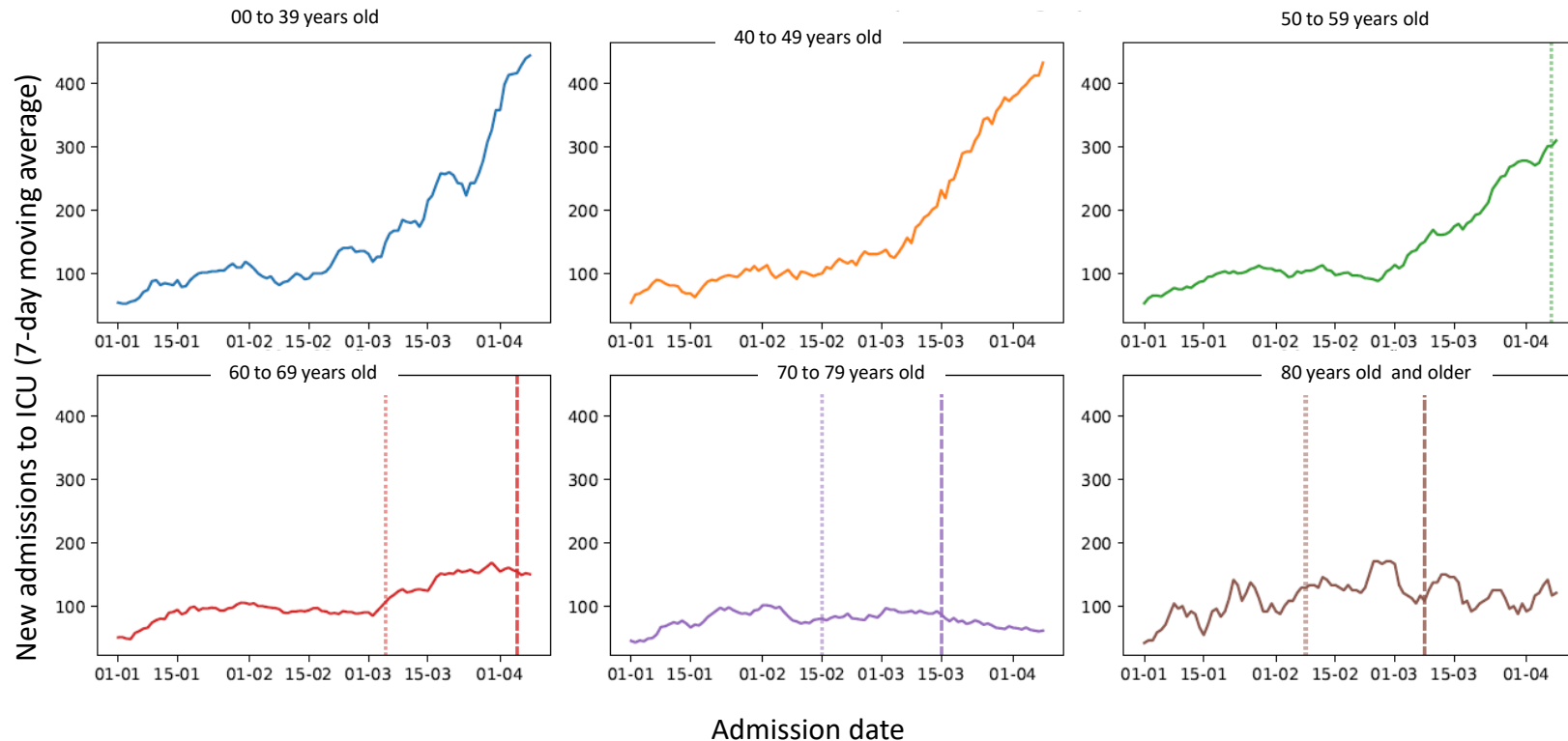




# ICU ADMISSIONS IN TIME

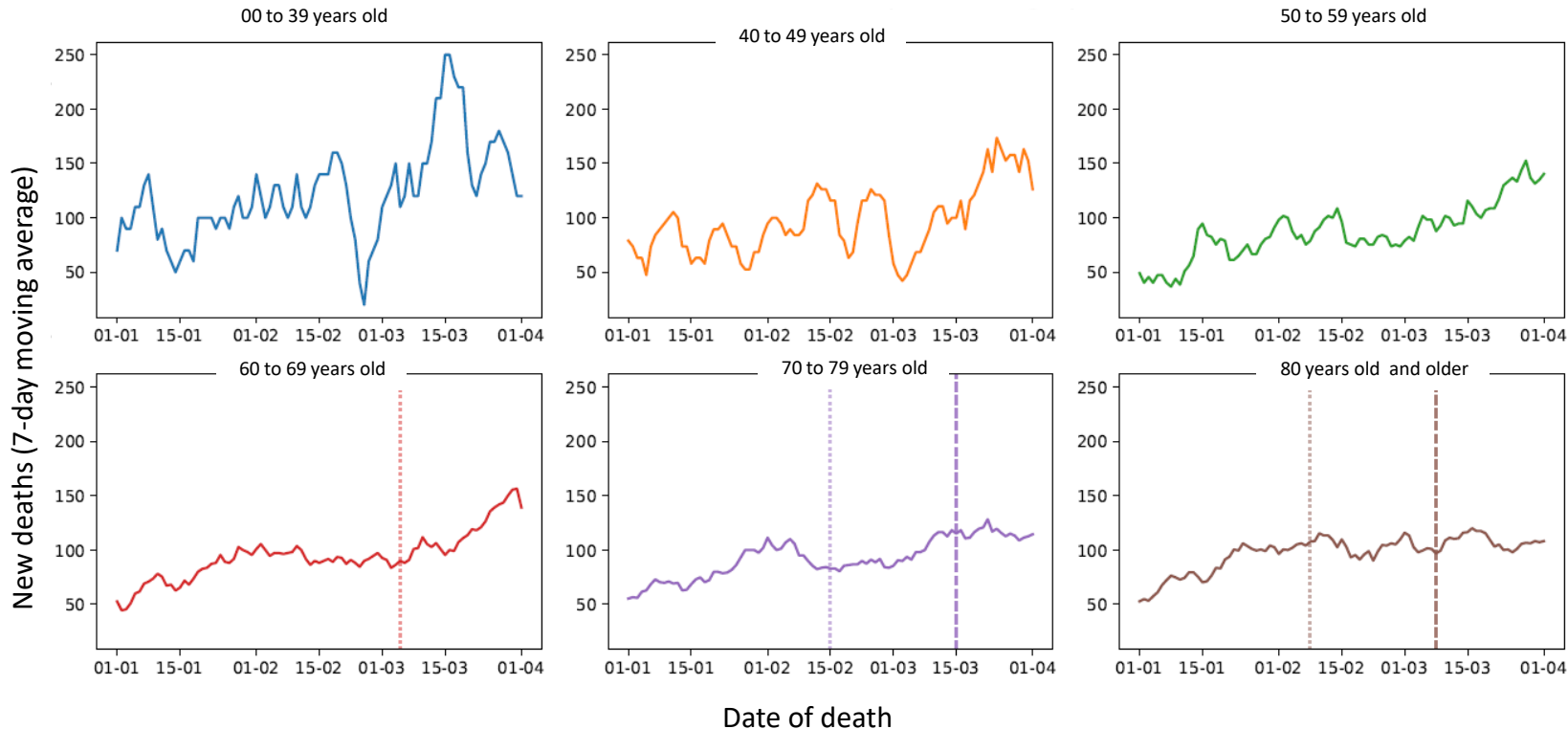
## Evolution of new admissions to ICU (2021)

Indexed to 100 by 02/03/2021 for each age group



# DEATHS DUE TO COVID-19 IN TIME

**Evolution of new deaths (2021)**  
Indexed to 100 by 02/03/2021 for each age group



# PRELIMINARY EFFECTIVENESS OF CORONAVAC

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- › vCOVID cohort Chile ~10,500,000 individuals (>16 years) under the National Health Fund (FONASA)
- › Compares outcomes between people vaccinated by CoronaVac® or unvaccinated (02/02/2021 – 04/01/2021) adjusted by age, gender, region of residence, income level, and nationality
  - Outcomes
    - Covid-19 symptomatic (cases confirmed by RT-PCR or antigen test for SARS-CoV-2)
    - Hospital admissions
    - ICU admissions
    - Deaths due to Covid-19 (U07.1)
- › Groups to be compared
  - Unvaccinated
  - Partially vaccinated ( $\geq 14$  days after the first dose)
  - Fully vaccinated ( $\geq 14$  days after the second dose)
  - The period between days 0 – 13 after the first or second doses were not considered (“unknown” state of immunity)

# RESULTS

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## EFFECTIVENESS OF CORONAVAC® 14 DAYS AFTER THE SECOND DOSE

67%

(65% - 69%)

Effectiveness to prevent  
**Symptomatic Covid-19**

85%

(83% - 87%)

Effectiveness to prevent  
**Hospital admission**

89%

(84% - 92%)

Effectiveness to prevent  
**ICU admission**

80%

(73% - 86%)

Effectiveness to prevent  
**Death**

# EFFECTIVENESS OF CORONAVAC (1 and 2 doses)

Vaccination status	Effectiveness (IC 95%) 100% x 1 - HR
<b>COVID 19</b>	
Unvaccinated	-
Partially vaccinated group	16.13
≥ 14 days after 1st dose	(14.30 ; 17.92)
Fully vaccinated group	66.96
≥ 14 days after 2nd dose	(65.28 ; 68.55)
<b>Hospital admissions</b>	
Unvaccinated	-
Partially vaccinated group	36.65
≥ 14 days after 1st dose	(32.13 ; 38.99)
Fully vaccinated group	84.84
≥ 14 days after 2nd dose	(82.52 ; 86.85)
<b>ICU admissions</b>	
Unvaccinated	-
Partially vaccinated group	42.70
≥ 14 days after 1st dose	(37.08 ; 42.82)
Fully vaccinated group	88.55
≥ 14 days after 2nd dose	(84.46 ; 91.56)
<b>Deaths due to COVID 19</b>	
Unvaccinated	-
Partially vaccinated group	40.23
≥ 14 days after 1st dose	(32.63 ; 46.97)
Fully vaccinated group	80.44
≥ 14 days after 2nd dose	(73.16 ; 85.75)

# WHAT SHOULD WE UNDERSTAND BY EFFECTIVENESS?

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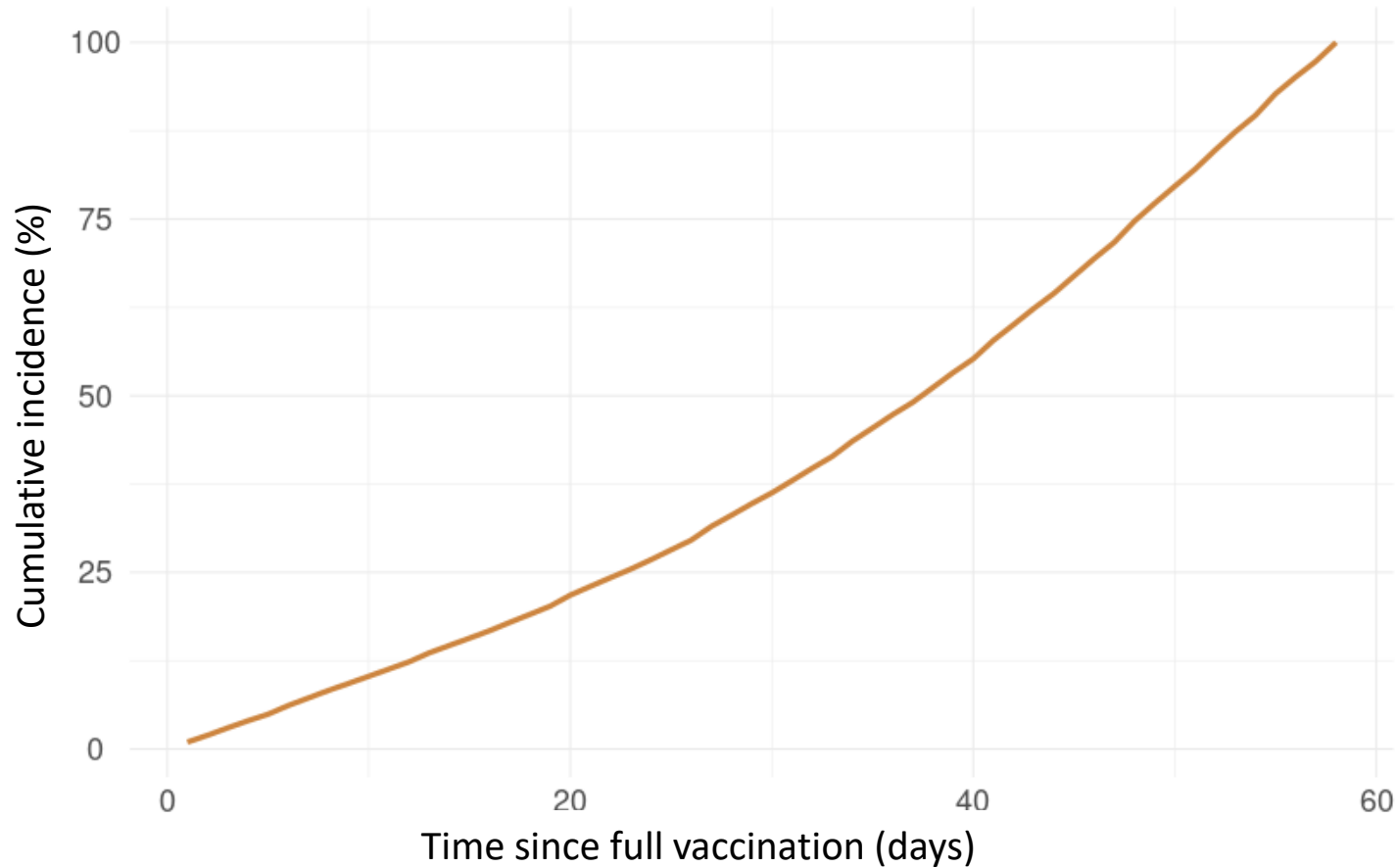
It is the protection provided by a vaccine under real-life conditions

What do results tell us?

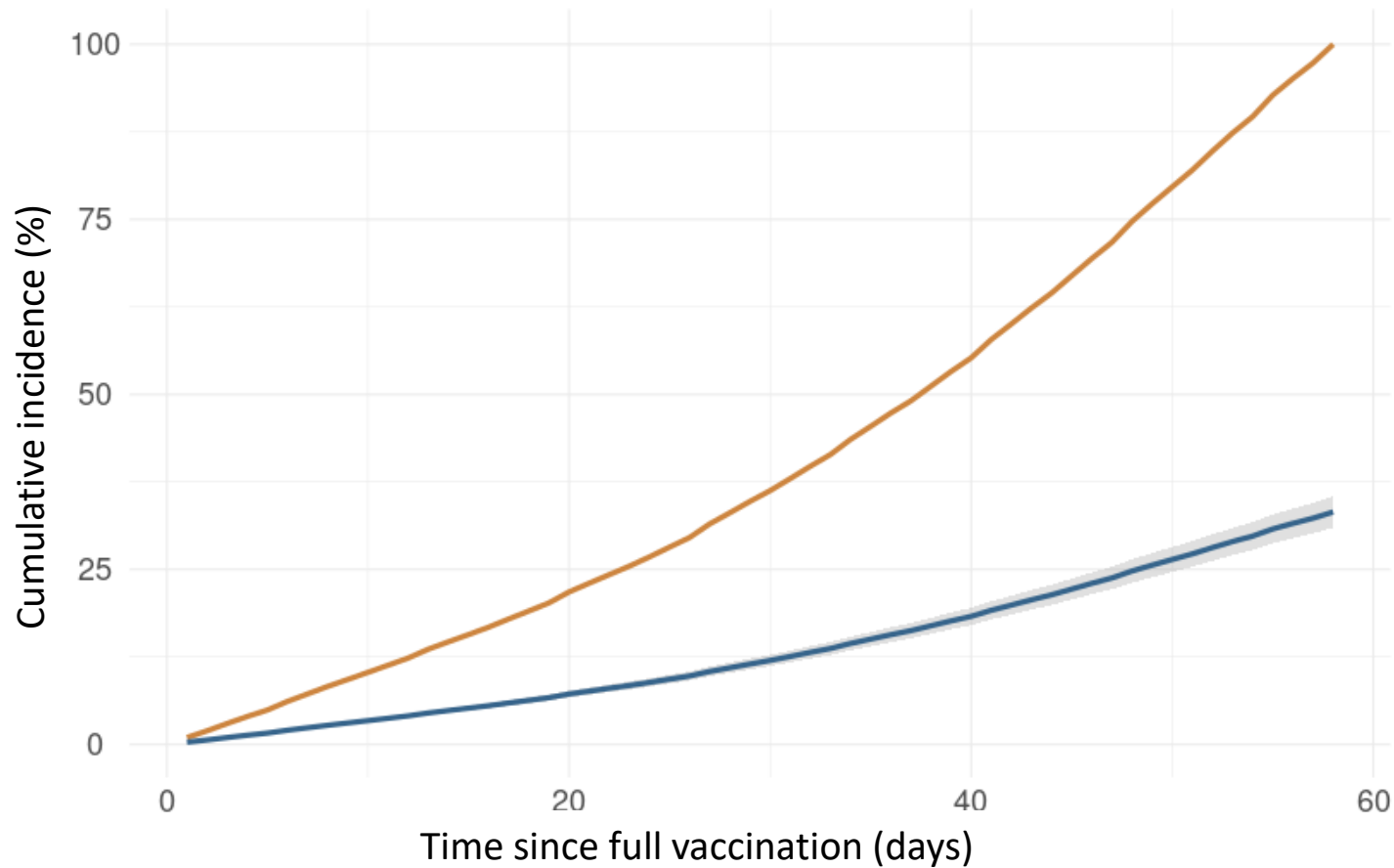
- **Effectiveness of 67% to prevent Covid-19**
  - Out of 100 people who could have had Covid-19, there would have only been 33 cases, if we are all vaccinated.
- **Effectiveness of 80% to prevent deaths due to Covid-19**
  - › Out of 100 people who could have died from Covid-19, 20 would actually do, if we are all vaccinated.

## SYMPTOMATIC CASES

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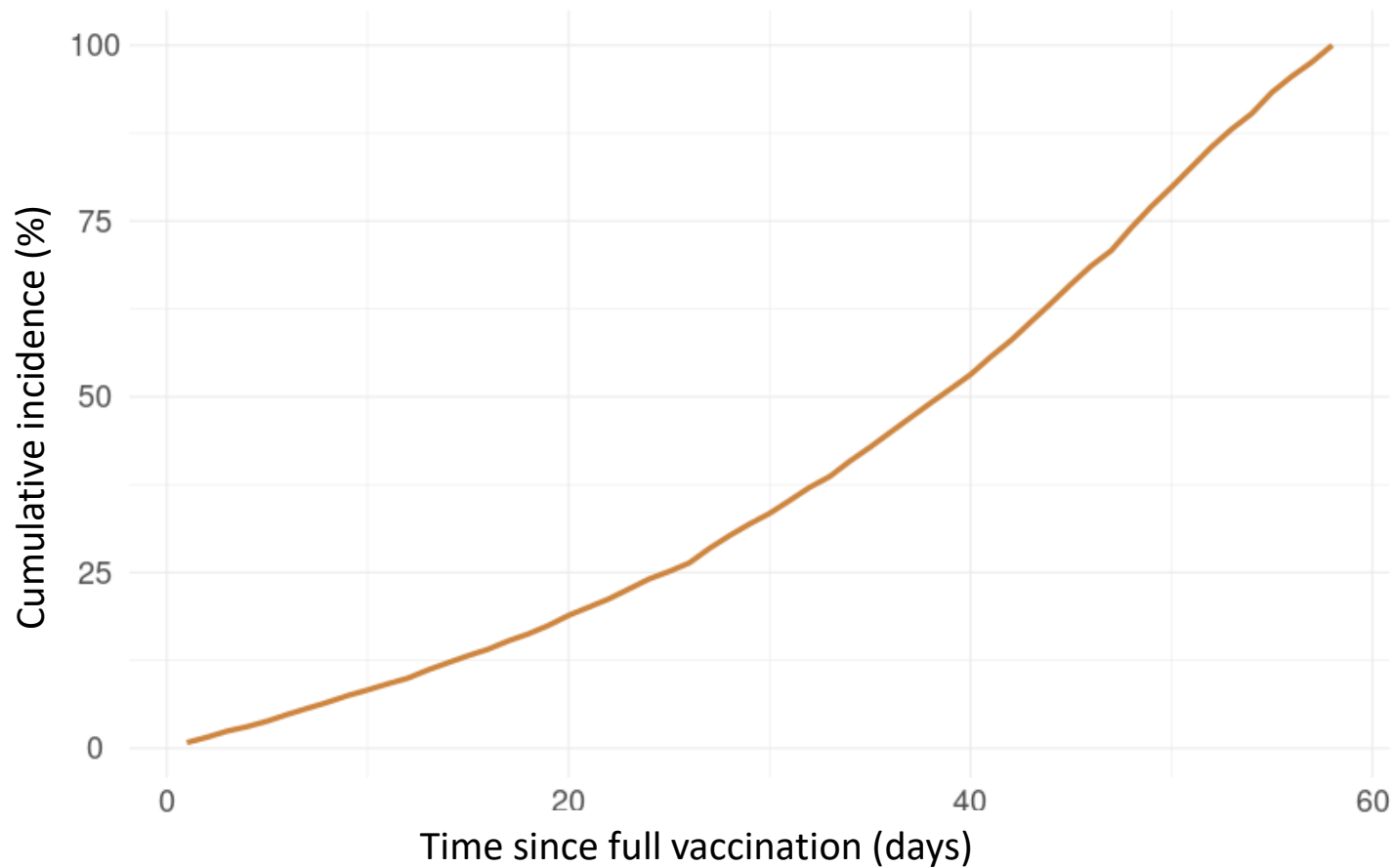
## SYMPTOMATIC CASES



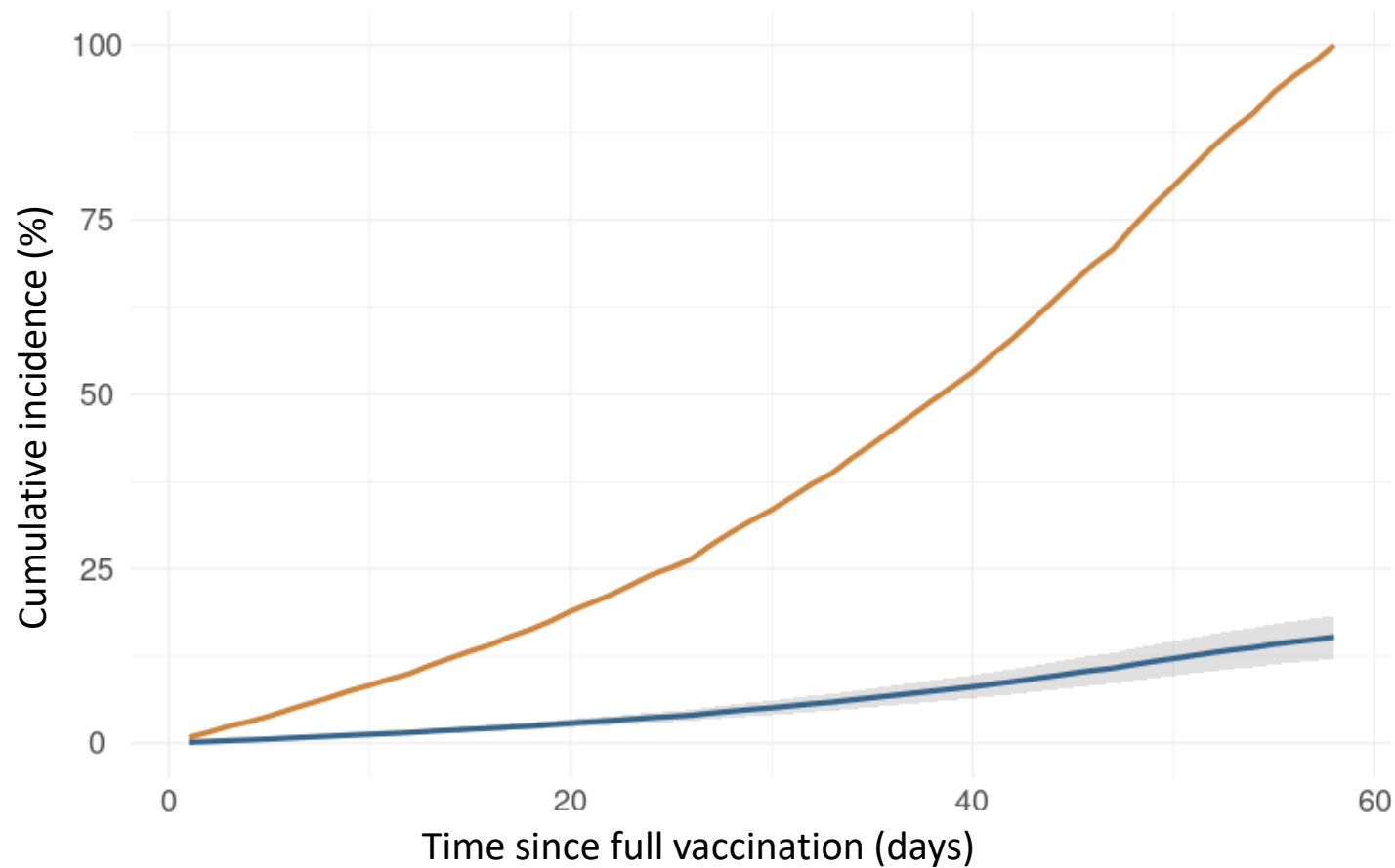


# HOSPITAL ADMISSIONS

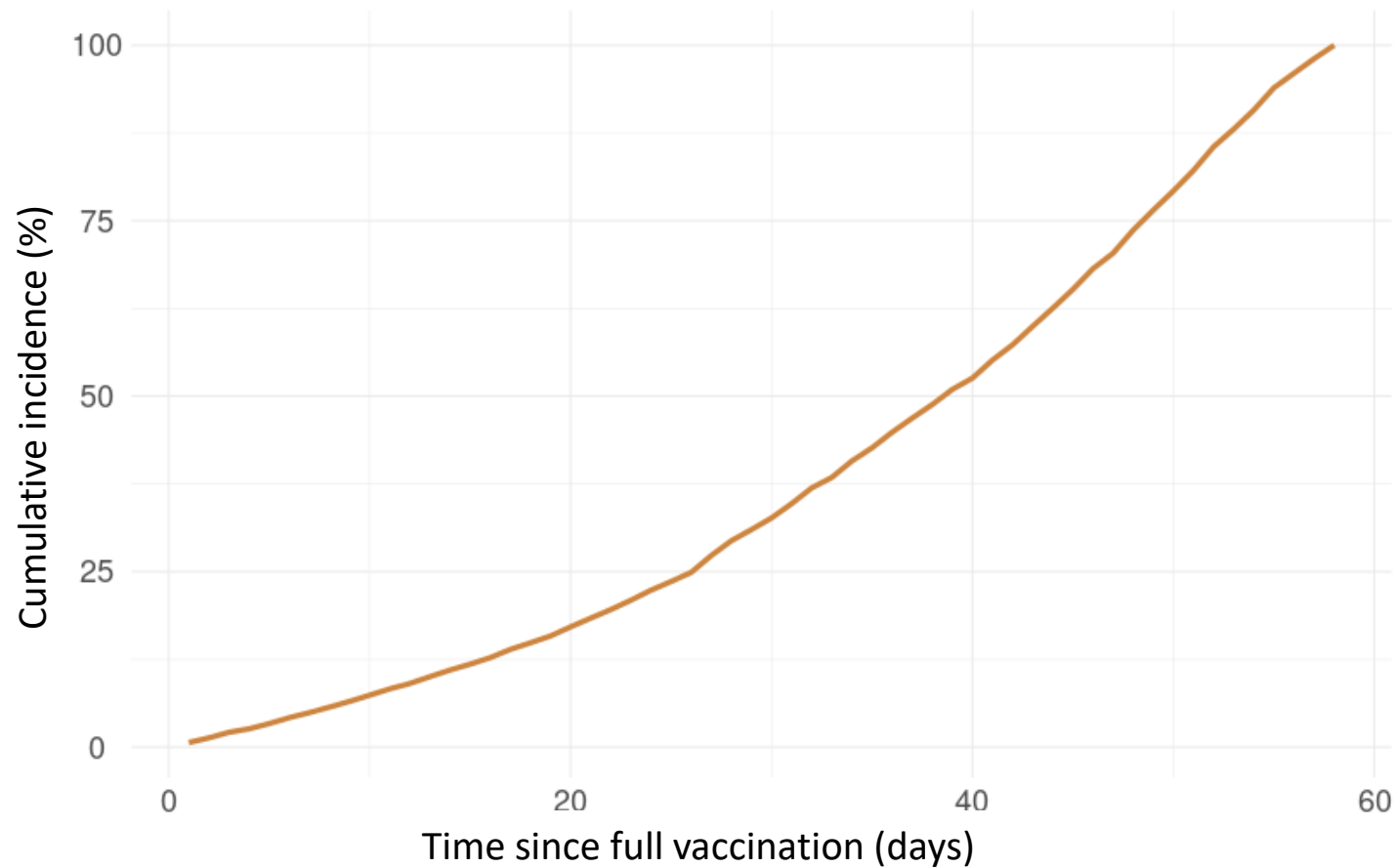
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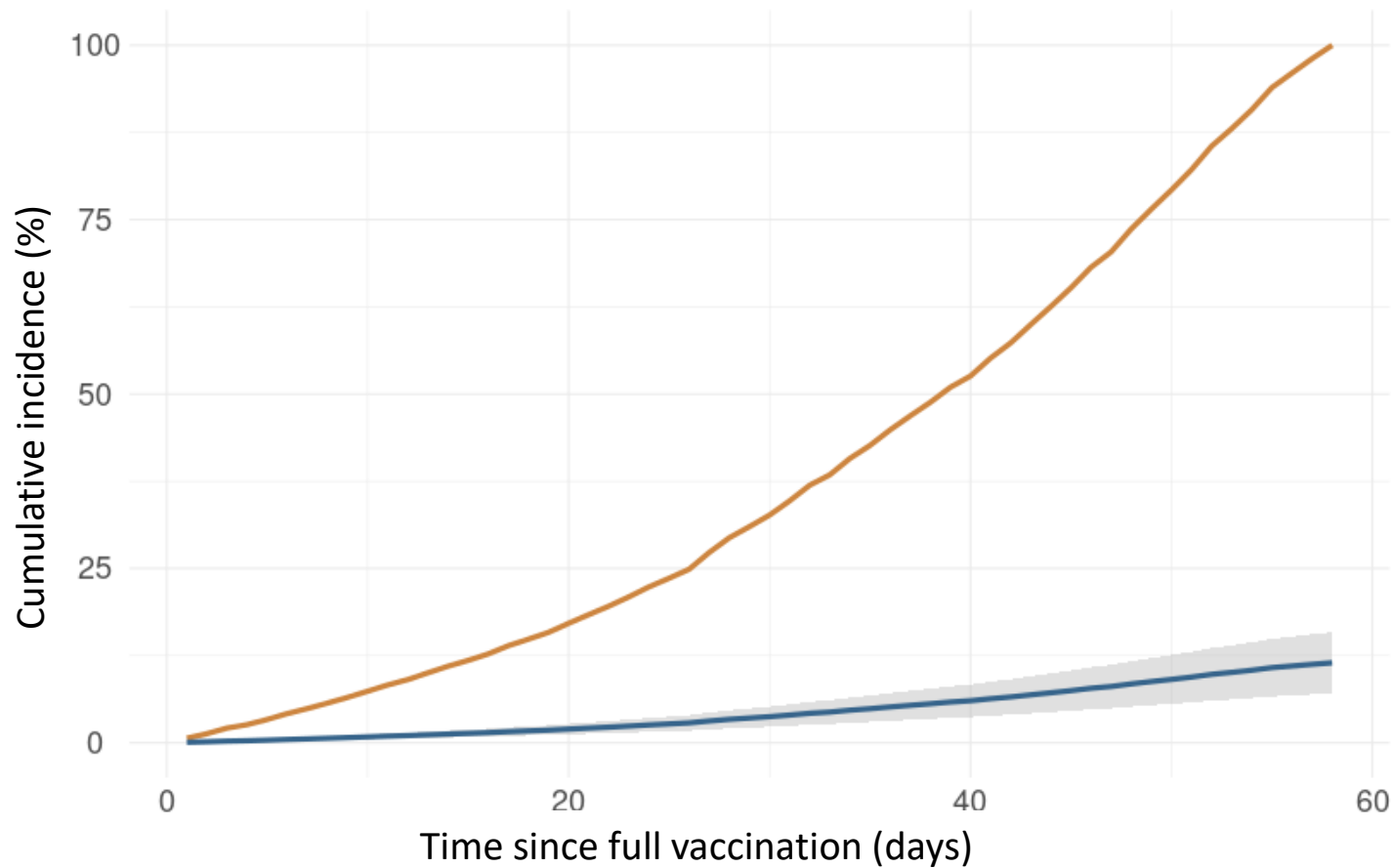
# HOSPITAL ADMISSIONS



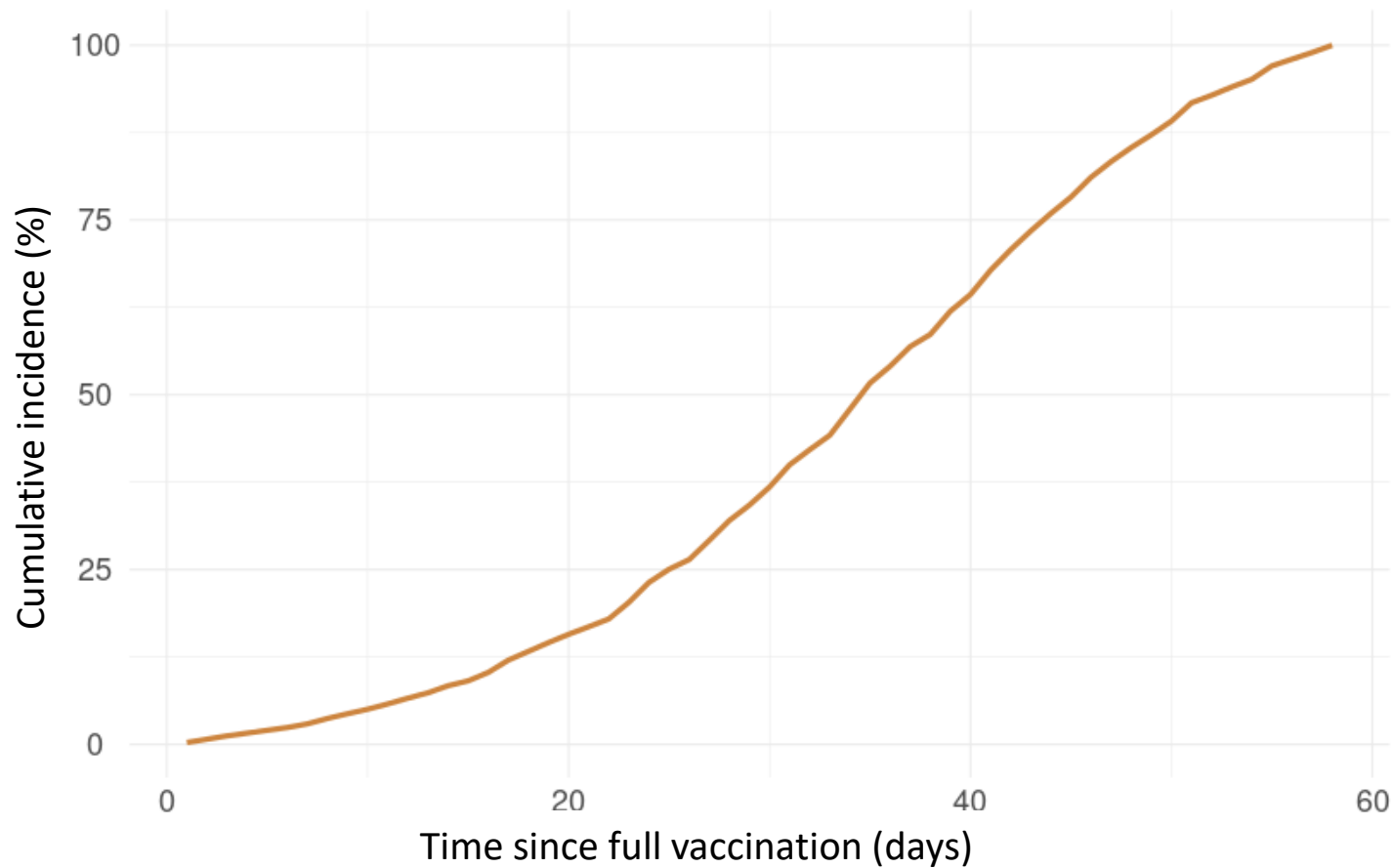
# ICU ADMISSION CASES



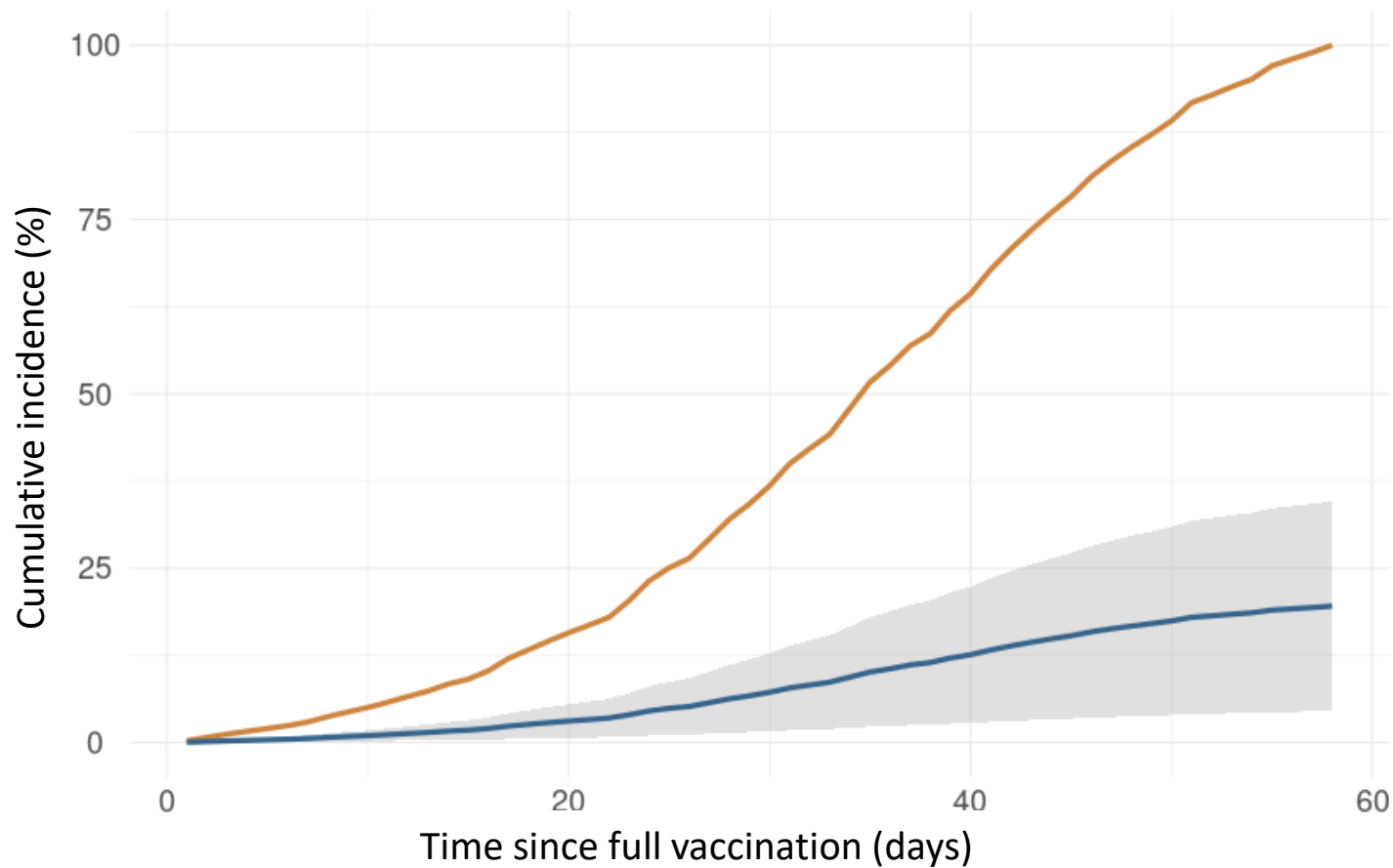
# ICU ADMISSION CASES



# CONFIRMED DEATHS



# CONFIRMED DEATHS



# CONCLUSIONS

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- › In a scenario of high epidemic activity), the vaccine studied protects susceptible groups (the elderly and people with comorbidities) against symptomatic SARS-CoV-2 infection, as well as against the most severe forms of the disease.
- › Since we do not have 100%-effective vaccines, it is essential that we ALL get.
- › No se deben descuidar las medidas de salud pública adicionales a la inmunización.
  - Hygiene and personal care, mobility restrictions

**\*\*This is a preliminary report and it will be updated on a monthly basis\*\***

# ACKNOWLEDGEMENTS

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## › **Team at the Ministry of Health**

- National Immunization Program (PNI)
- Health Planning Division, Epidemiology Department, Health Statistics and Information Department
- National Health Fund (FONASA)
- Public Health Institute (ISP)
- Primary Healthcare Division (DIVAP)

## › **Academic Team**

- School of Medicine Clínica Alemana - Universidad del Desarrollo
- Pontificia Universidad Católica de Chile

## › **Covid-19 Advisory Council**





## PLAN NACIONAL DE VACUNACIÓN COVID-19

#SigamosCuidándonos



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