

Monitoring Data from the National Service for Older Adults (*SENAMA*)

Epidemiological status of LTCF with high vaccination coverage and high community transmission: the case of Chile



Jorge Browne Salas

MD, Geriatrician. MSc PH LSHTM, Mphil Epidemiology Cambridge Uni.

Consultant at Servicio Nacional del Adulto Mayor (*SENAMA*)

Facultad de Medicina, Universidad Católica de Chile

introduction

Daily new confirmed COVID-19 cases per million people

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.

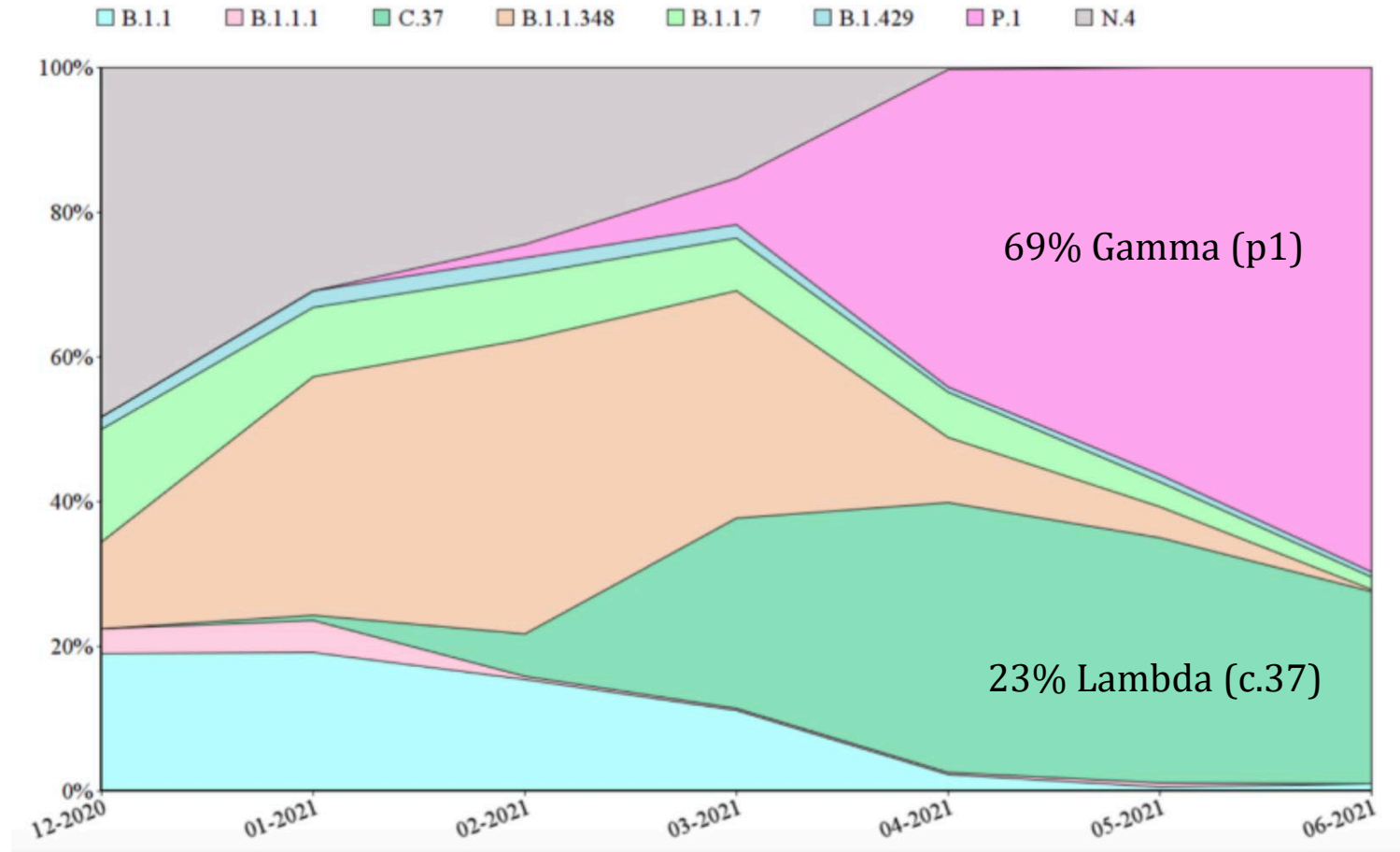


LINEAR LOG



Source: Johns Hopkins University CSSE COVID-19 Data

Circulating Variants in the Community

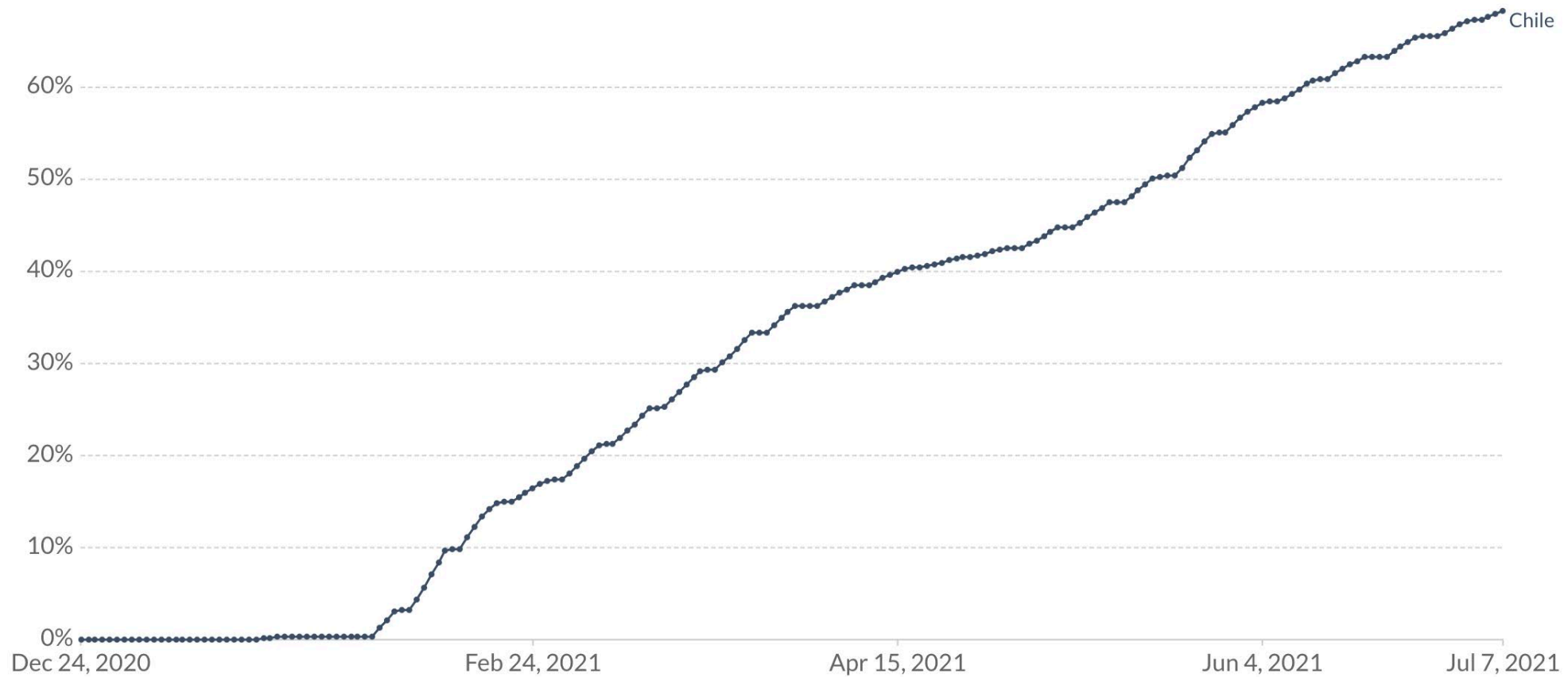


Fuente: Instituto de Salud Pública de Chile

Share of people who received at least one dose of COVID-19 vaccine

Share of the total population that received at least one vaccine dose. This may not equal the share that are fully vaccinated if the vaccine requires two doses. This data is only available for countries which report the breakdown of doses administered by first and second doses.

[LINEAR](#) [LOG](#)



LTC facilities in Chile

24.4% (488,990) of 65+ w/functional ability loss

1.4% of the population 65+ live in LTCF in a mix of:

- Public
- Private non-profit
- Private for-profit institutions
 - w/ Ministry of Health authorization
 - *informal* or wo/ Ministry of Health authorization

COVID-19 Strategy for LTCF

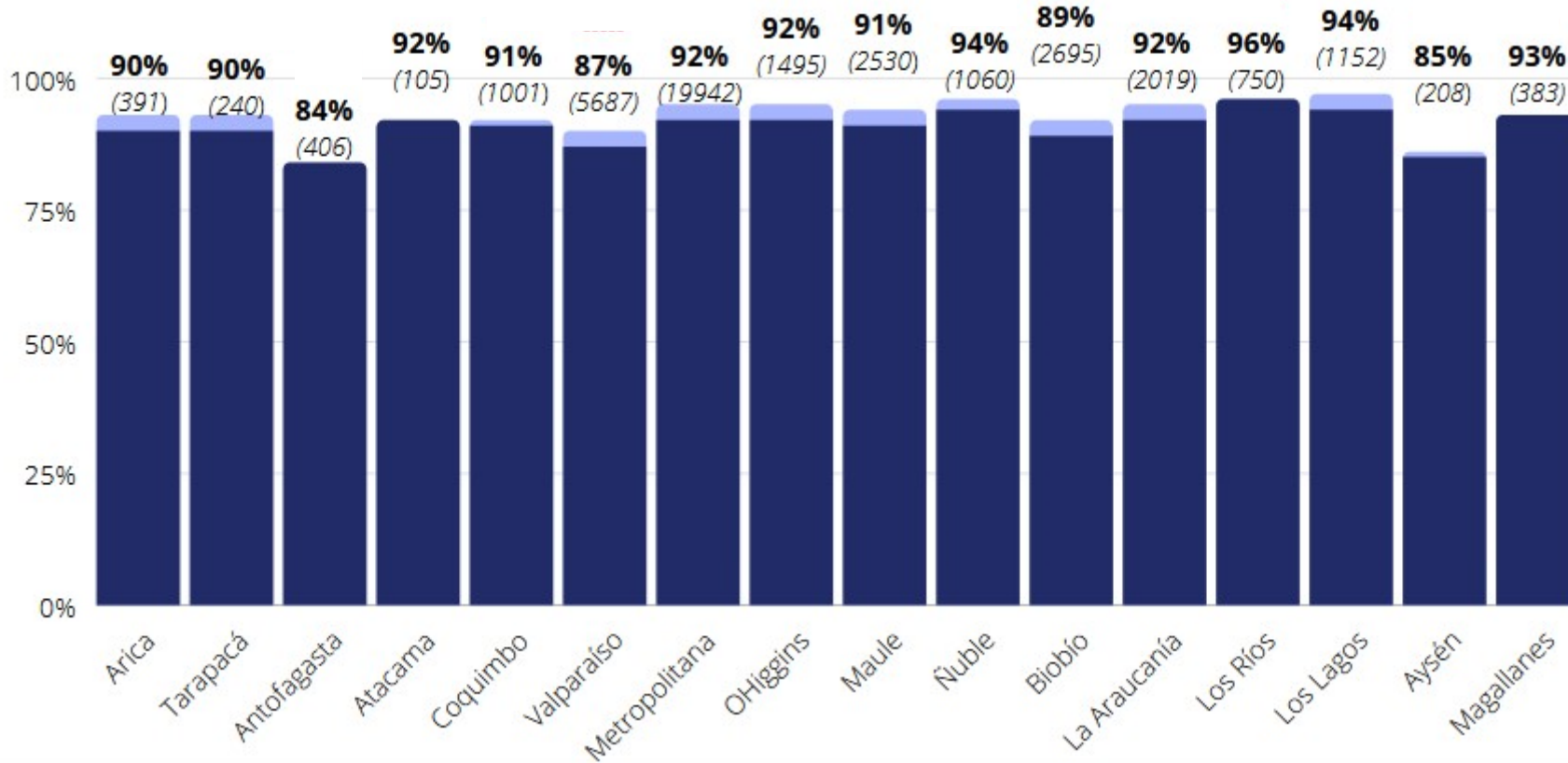
Ministry of Health

+ National Service for Older Adults (SENAMA)

+ Chilean Geriatrics and Gerontology Society

- Free delivery of Personal Protective Equipment (PPE)
- Protocols and guidelines
- Staff replacing for cases of COVID-19 related sick leave;
- Field testing with rt-PCR
- Transfer of confirmed and/or suspected cases to sanitary houses.
- Monitoring Platform

Vaccination in LTCF



87 % (38,750)

Residents + Staff with complete vaccination scheme (2 weeks after 2nd dose)

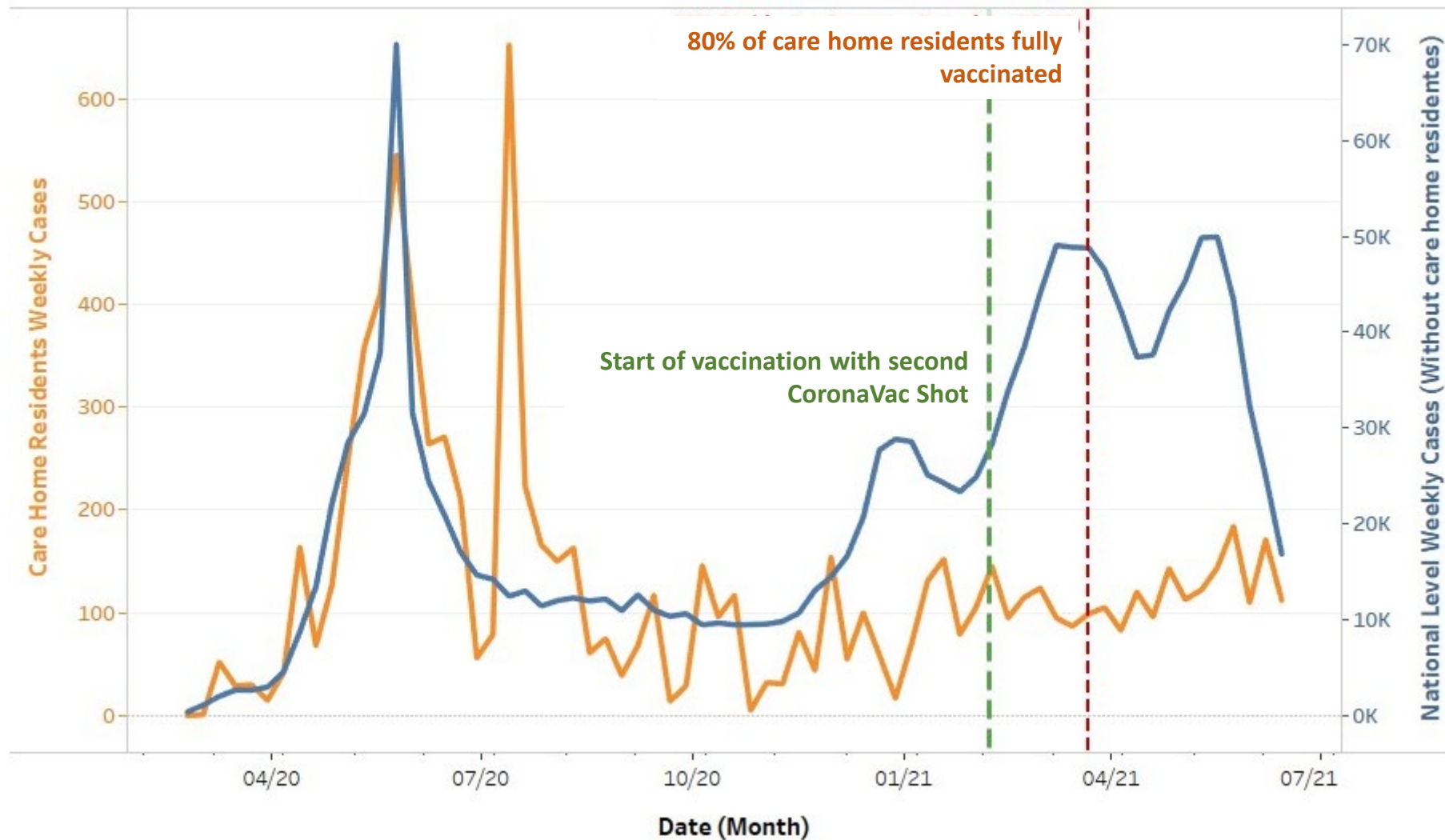
**96% Sinovac (Inactivated)
4% Pfizer (mRNA)**

RESIDENTS WITH 2ND DOSE

evidence for vaccine effectiveness

New weekly COVID-19 cases

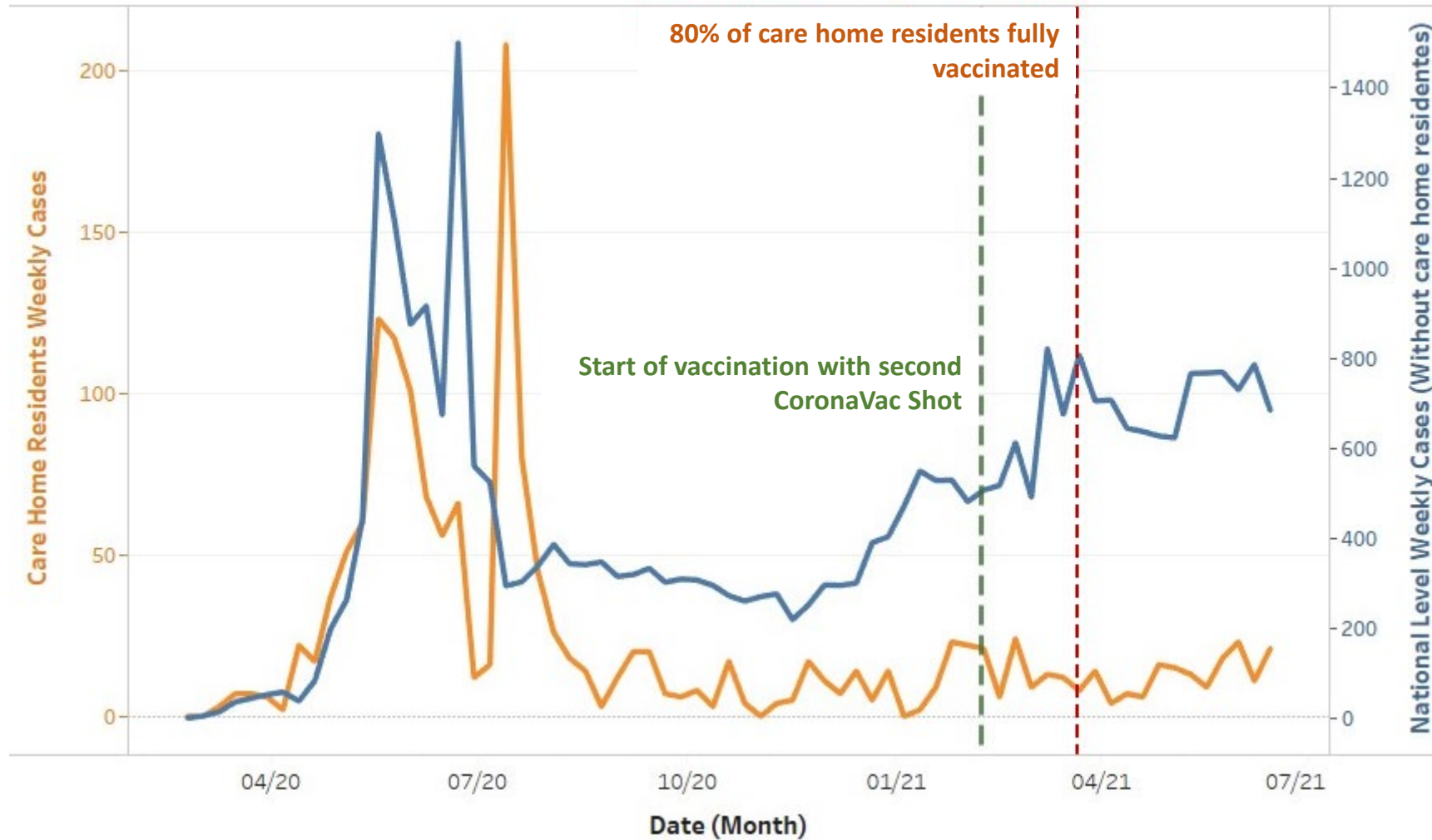
March 2020 - July 2021



● LTC residents ● Rest of the population

New weekly COVID-19 related deaths

March 2020 - July 2021



● LTC residents ● Rest of the population

Attack rate & Case Fatality rate

Before vs After Vaccination

Attack rate

Before and after 80% of residentes w/ complete scheme (April 15th)

Average

33,8%

Before April 15th

Median: 30,8%



Average

23,4%

After April 15th

Median: 10,0%

Case Fatality rate

Before and after 80% of residentes w/ complete scheme (April 15th)

Average

20,1%

Before April 15th



Average

11,0%

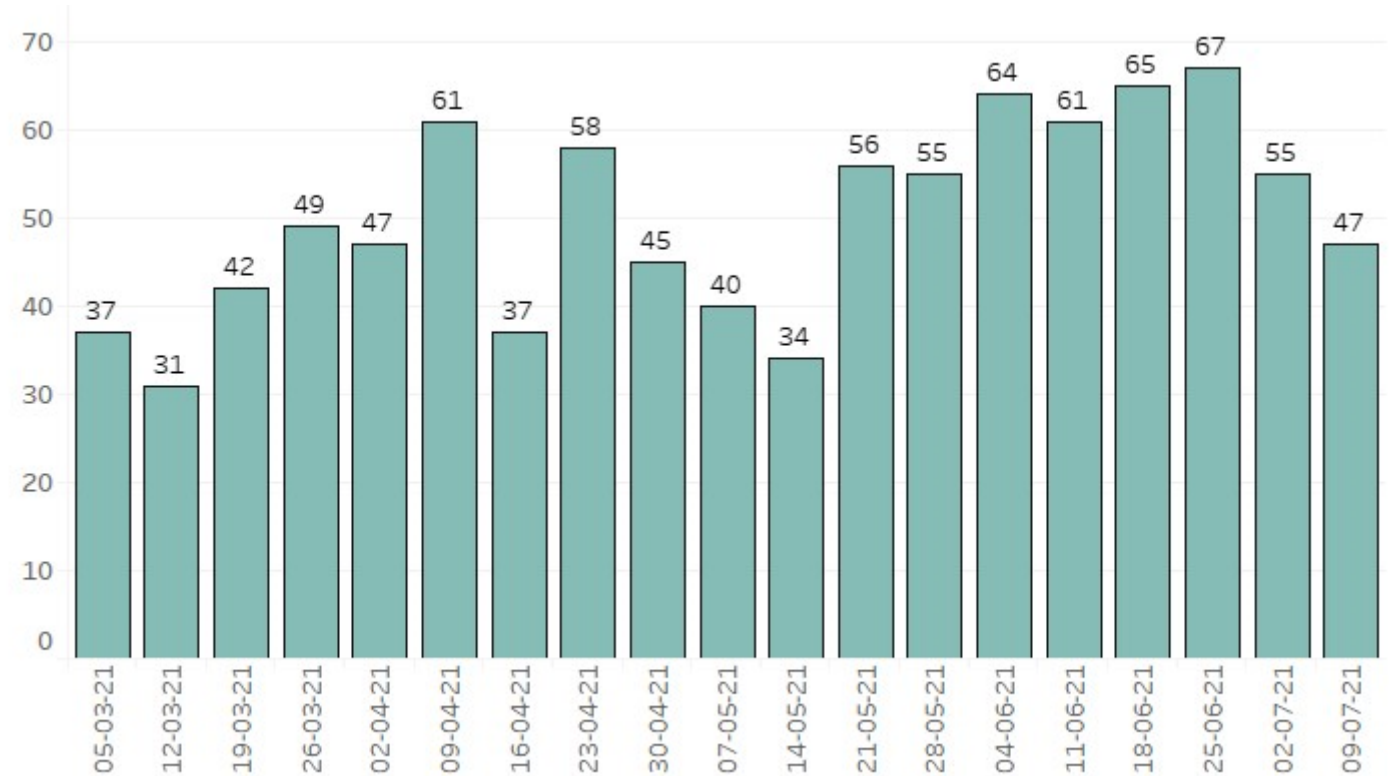
After April 15th



69% (822)

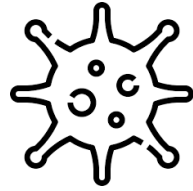
LTC facilities that have had an outbreak

LTC Facilities with at least 1 active COVID-19 case



*Datos semanales actualizados cada viernes

** Los casos actuales se calculan en base a la cantidad de casos nuevos en los ELEM durante los últimos 11 días



13,399 Cases

8,864 Residents (35%) and 4,535 Staff

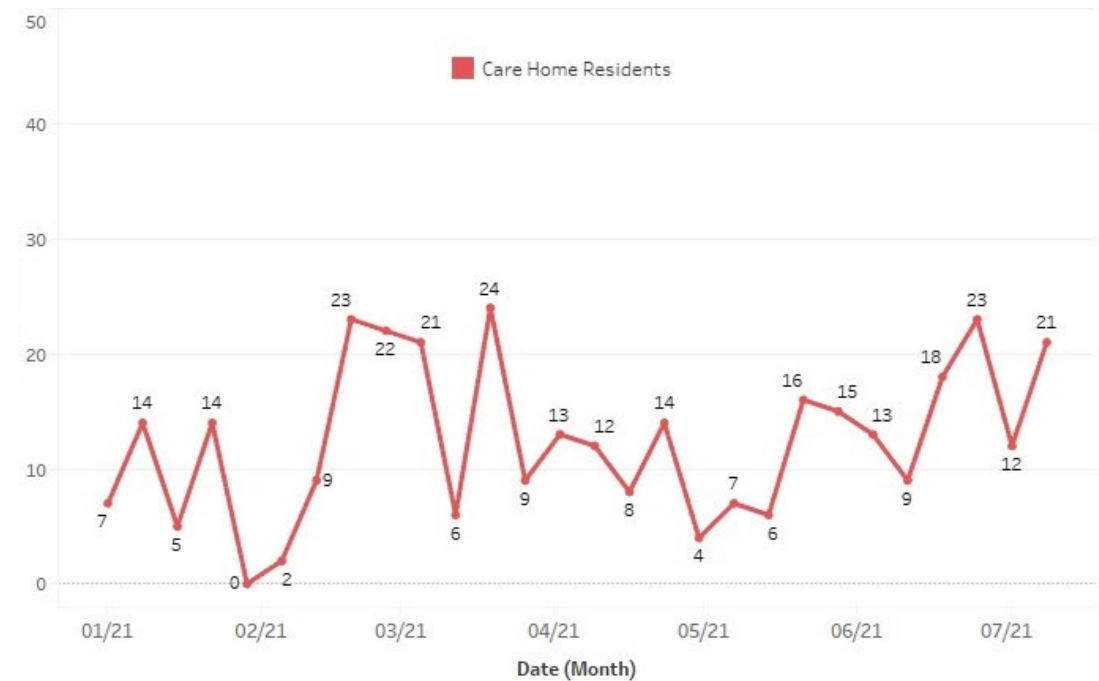
New weekly COVID-19 cases



1.634 Deaths

1.625 Residents and 9 Staff

New weekly COVID-19 deaths



High attack rate ($\geq 40\%$) + High vaccination rate ($\geq 80\%$ residents) (CoronaVac)

In yellow 100% Gamma Variant

LTC Facility identification	Region	Comuna	Outbrake date	Attack rate	Case Fatality rate
#1***	Valparaíso	Villa Alemana	10 / 5	100% (15)	20% (3)
#2	Metropolitana	La Cisterna	29 / 4	100% (34)	6% (2)
#3	Metropolitana	San Bernardo	24 / 5	100% (23)	30% (7)
#4	Metropolitana	San Miguel	03 / 5	90% (27)	4% (1)
#5	Metropolitana	La Cisterna	10 / 5	84% (25)	26% (7)
#6	Metropolitana	El Bosque	03 / 5	85% (11)	9% (1)
#7	Biobío	Nacimiento	19 / 5	85% (17)	0% (0)
#8	Valparaíso	Quillota	19 / 5	87% (13)	15% (2)
#9	Los Ríos	Paillaco	17 / 5	81% (13)	46% (6)
#10	Valparaíso	Viña del Mar	15 / 4	75% (12)	9% (1)
#11	Valparaíso	Quillota	13 / 5	71% (10)	30% (3)
#12	Metropolitana	San Bernardo	18 / 5	67% (6)	0% (0)
#13	Coquimbo	La Serena	25 / 5	19%(16)	25% (4)

High attack rate ($\geq 40\%$) + High vaccination rate ($\geq 80\%$ residents) (CoronaVac)

In Green 100% Lambda variant

LTC Facility identification	Region	Comuna	Outbrake date	Attack rate	Case Fatality rate
#14	Valparaíso	Villa Alemana	21 / 6	100% (12)	17% (2)
#15	Araucanía	Pitrufquén	15 / 6	100% (11)	18% (2)
#16	Los Ríos	Paillaco	07 / 6	93% (14)	0% (0)
#17	RM	La Florida	11 / 6	92% (12)	25% (3)
#18	RM	San Bernardo	15 / 6	92% (11)	0% (0)
#19	O'Higgins	Navidad	28 / 5	96% (21)	19% (4)
#20	RM	Puente Alto	11 / 6	78% (7)	29% (2)
#21	Valparaíso	Quilpué	04 / 6	77% (10)	0% (0)
#22	RM	Maipú	18 / 6	61% (11)	18% (2)
#23	RM	La Granja	3 / 6	73% (36)	11% (4)
#24	RM	San José de Maipo	1 / 6	87% (40)	23% (9)
#25	O'Higgins	Paredones	8 / 6	80% (20)	5,0% (1)
#26	Valparaíso	Quilpué	11 / 6	75% (12)	8,3% (1)
#27	Valparaíso	Viña del Mar	5 / 6	63% (5)	0% (0)

High attack rate ($\geq 40\%$) + High vaccination rate ($\geq 80\%$ residents) (CoronaVac)

*

LTC Facility identification	Region	Comuna	Outbrake date	Attack rate	Case Fatality rate
#28	Valparaíso	Limache	29 / 6	100% (20)	10% (2)
#29	Valparaíso	Pichilemu	06 / 6	91% (21)	4,8% (1)
#30	Biobío	Concepción	24 / 6	90% (9)	22% (2)
#31	RM	Puente Alto	18 / 6	83% (15)	20% (3)
#32	RM	Recoleta	24 / 6	83% (10)	0% (0)
#33	RM	Ñuñoa	10 / 6	80% (8)	0% (0)
#34	RM	El Bosque	16 / 6	80% (8)	0% (0)
#35	RM	Puente Alto	16 / 6	78% (7)	29% (2)
#36	RM	La Pintana	14 / 6	76% (29)	10% (3)
#37	Maule	Retiro	20 / 6	75% (12)	0% (0)
#38	RM	San Miguel	28 / 6	68% (30)	13% (4)
#39	RM	Ñuñoa	17 / 6	67% (8)	0% (0)
#40	RM	Melipilla	14 / 6	64% (9)	11% (1)
#41	Valparaíso	Quillota	7 / 6	62% (8)	25% (2)
#42	RM	Providencia	10 / 6	60% (9)	11% (1)

Any outbreaks w/Pfizer?

LTCF #42

89 residents w/ 91% with complete vaccination scheme
(2nd dose 09-02-2021)

Outbreak 26-06-2021, to date:

Residents - Attack rate 31% (28) Case fatality rate 7% (2)

Staff - Attack rate 17% (7) Case fatality rate 0% (0)

What do we know about duration of immunity?

Clinical Studies:

“Immune response against SARS-Cov-2 in elderly residents of LTC facilities and their caregivers receiving inactivated SARS-CoV-2 vaccine (Sinovac®)”

Universidad de Chile – SENAMA

Data collection: July 2021

120 vaccinated LTC residents and staff
Neutralizing antibodies + lateral flow