

**Table A:** Case population characteristics by test result and vaccination status.

	Test result				Vaccination Status					
	Overall	Negative	Positive	p	Unvaccinated	Partially vaccinated	Fully vaccinated	Boosted	Other*	
<b>n</b>	844,460	613279	231181		291070	112542	334171	10937	95740	
<b>Any comorbidity (%)</b>	No	802548 (95.0)	583393 (95.1)	219155 (94.8)	<0.001	272720 (93.7)	107126 (95.2)	321064 (96.1)	10755 (98.3)	90883 (94.9)
	Yes	41912 (5.0)	29886 (4.9)	12026 (5.2)		18350 (6.3)	5416 (4.8)	13107 (3.9)	182 (1.7)	4857 (5.1)
<b>Sex (%)</b>	Female	423757 (50.2)	302251 (49.3)	121506 (52.6)	<0.001	142045 (48.8)	55780 (49.6)	172538 (51.6)	5505 (50.3)	47889 (50.0)
	Male	420703 (49.8)	311028 (50.7)	109675 (47.4)		149025 (51.2)	56762 (50.4)	161633 (48.4)	5432 (49.7)	47851 (50.0)
<b>Type of test (%)</b>	RT-PCR	421359 (49.9)	341401 (55.7)	79958 (34.6)	<0.001	171839 (59.0)	53912 (47.9)	140544 (42.1)	7173 (65.6)	47891 (50.0)
	Antigen	423101 (50.1)	271878 (44.3)	151223 (65.4)		119231 (41.0)	58630 (52.1)	193627 (57.9)	3764 (34.4)	47849 (50.0)
<b>Week of diagnosis (mean(SD))</b>		14.6 (7.8)	13.5 (8.6)	17.6 (3.9)	<0.001	9.1 (7.7)	15.6 (6.4)	19.1 (5.1)	25.4 (4.5)	13.4 (6.6)
<b>Age group (%)</b>	3-11 years old	478122 (56.6)	362634 (59.1)	115488 (50.0)	<0.001	200993 (69.1)	66754 (59.3)	154698 (46.3)	903 (8.3)	54774 (57.2)
	12-17 years old	366338 (43.4)	250645 (40.9)	115693 (50.0)		90077 (30.9)	45788 (40.7)	179473 (53.7)	10034 (91.7)	40966 (42.8)
<b>Time since second dose vaccination (%)</b>	< 60 days	455107 (70.2)	354615 (74.8)	100492 (57.5)	<0.001			160840 (48.1)		
	≥ 60 days	193562 (29.8)	119187 (25.2)	74375 (42.5)				173331 (51.9)		

\*Includes those who were vaccinated in the two weeks prior to their test, those who received another vaccine, and those with inconsistent or incomplete vaccination data.

**Table B:** Unmatched population province distribution.

	Test result			Vaccination status				
	Overall	Negative	Positive	Unvaccinated	Partially vaccinated	Fully vaccinated	Boosted	Other
<b>Buenos Aires</b>	312877 (37.1)	234622 (38.3)	78255 (33.9)	108299 (37.2)	40690 (36.2)	125796 (37.6)	3187 (29.1)	34905 (36.5)
<b>CABA</b>	162675 (19.3)	120344 (19.6)	42331 (18.3)	69633 (23.9)	13352 (11.9)	58497 (17.5)	2627 (24.0)	18566 (19.4)
<b>Catamarca</b>	8754 (1.0)	6380 (1.0)	2374 (1.0)	2773 (1.0)	1338 (1.2)	3652 (1.1)	42 (0.4)	949 (1.0)
<b>Chaco</b>	14018 (1.7)	10652 (1.7)	3366 (1.5)	5212 (1.8)	2328 (2.1)	4591 (1.4)	66 (0.6)	1821 (1.9)
<b>Chubut</b>	3245 (0.4)	2441 (0.4)	804 (0.3)	1381 (0.5)	481 (0.4)	1020 (0.3)	21 (0.2)	342 (0.4)
<b>Corrientes</b>	10389 (1.2)	7928 (1.3)	2461 (1.1)	2577 (0.9)	2501 (2.2)	3443 (1.0)	36 (0.3)	1832 (1.9)
<b>Córdoba</b>	106479 (12.6)	58707 (9.6)	47772 (20.7)	31188 (10.7)	16255 (14.4)	47156 (14.1)	265 (2.4)	11615 (12.1)
<b>Entre Ríos</b>	9182 (1.1)	6667 (1.1)	2515 (1.1)	3387 (1.2)	1303 (1.2)	3529 (1.1)	34 (0.3)	929 (1.0)
<b>Formosa</b>	23767 (2.8)	18156 (3.0)	5611 (2.4)	3895 (1.3)	4454 (4.0)	9161 (2.7)	3451 (31.6)	2806 (2.9)
<b>Jujuy</b>	8333 (1.0)	6342 (1.0)	1991 (0.9)	2850 (1.0)	1775 (1.6)	2698 (0.8)	34 (0.3)	976 (1.0)
<b>La Pampa</b>	14465 (1.7)	9548 (1.6)	4917 (2.1)	3281 (1.1)	1032 (0.9)	8425 (2.5)	196 (1.8)	1531 (1.6)
<b>La Rioja</b>	4643 (0.5)	3484 (0.6)	1159 (0.5)	1077 (0.4)	535 (0.5)	2516 (0.8)	45 (0.4)	470 (0.5)
<b>Mendoza</b>	22408 (2.7)	18359 (3.0)	4049 (1.8)	9088 (3.1)	3400 (3.0)	7643 (2.3)	121 (1.1)	2156 (2.3)
<b>Misiones</b>	1653 (0.2)	888 (0.1)	765 (0.3)	696 (0.2)	280 (0.2)	474 (0.1)	35 (0.3)	168 (0.2)
<b>Neuquén</b>	5306 (0.6)	4501 (0.7)	805 (0.3)	2249 (0.8)	844 (0.7)	1584 (0.5)	37 (0.3)	592 (0.6)
<b>Río Negro</b>	8697 (1.0)	7030 (1.1)	1667 (0.7)	2431 (0.8)	1517 (1.3)	3397 (1.0)	42 (0.4)	1310 (1.4)
<b>Salta</b>	12527 (1.5)	9673 (1.6)	2854 (1.2)	4993 (1.7)	2324 (2.1)	3735 (1.1)	39 (0.4)	1436 (1.5)
<b>San Juan</b>	15468 (1.8)	11275 (1.8)	4193 (1.8)	3932 (1.4)	2375 (2.1)	7444 (2.2)	69 (0.6)	1648 (1.7)
<b>San Luis</b>	13766 (1.6)	9487 (1.5)	4279 (1.9)	4086 (1.4)	1414 (1.3)	5832 (1.7)	186 (1.7)	2248 (2.3)
<b>Santa Cruz</b>	3362 (0.4)	2534 (0.4)	828 (0.4)	1166 (0.4)	531 (0.5)	1321 (0.4)	48 (0.4)	296 (0.3)
<b>Santa Fe</b>	46251 (5.5)	36306 (5.9)	9945 (4.3)	15211 (5.2)	6931 (6.2)	18504 (5.5)	284 (2.6)	5321 (5.6)
<b>Santiago del Estero</b>	7255 (0.9)	6087 (1.0)	1168 (0.5)	1916 (0.7)	1047 (0.9)	3322 (1.0)	34 (0.3)	936 (1.0)
<b>Tierra del Fuego</b>	1055 (0.1)	745 (0.1)	310 (0.1)	370 (0.1)	132 (0.1)	444 (0.1)	11 (0.1)	98 (0.1)

<b>Tucumán</b>	27885 (3.3)	21123 (3.4)	6762 (2.9)	9379 (3.2)	5703 (5.1)	9987 (3.0)	27 (0.2)	2789 (2.9)
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**Table C:** Matched population province distribution.

	Test result			Vaccination status				
	Overall	Negative	Positive	Un-vaccinated	Partially vaccinated	Fully vaccinated	Boosted	Other
<b>Buenos Aires</b>	111372 (40.0)	55686 (40.0)	55686 (40.0)	23355 (38.8)	15522 (40.9)	61553 (40.8)	747 (19.9)	10195 (39.6)
<b>CABA</b>	37198 (13.3)	18599 (13.3)	18599 (13.3)	10006 (16.6)	3024 (8.0)	19722 (13.1)	695 (18.5)	3751 (14.6)
<b>Catamarca</b>	3068 (1.1)	1534 (1.1)	1534 (1.1)	521 (0.9)	488 (1.3)	1776 (1.2)	4 (0.1)	279 (1.1)
<b>Chaco</b>	5076 (1.8)	2538 (1.8)	2538 (1.8)	1360 (2.3)	943 (2.5)	2081 (1.4)	14 (0.4)	678 (2.6)
<b>Chubut</b>	1028 (0.4)	514 (0.4)	514 (0.4)	281 (0.5)	184 (0.5)	447 (0.3)	7 (0.2)	109 (0.4)
<b>Corrientes</b>	4068 (1.5)	2034 (1.5)	2034 (1.5)	679 (1.1)	863 (2.3)	2046 (1.4)	16 (0.4)	464 (1.8)
<b>Córdoba</b>	38070 (13.7)	19035 (13.7)	19035 (13.7)	8243 (13.7)	5247 (13.8)	21344 (14.1)	76 (2.0)	3160 (12.3)
<b>Entre Ríos</b>	3476 (1.2)	1738 (1.2)	1738 (1.2)	939 (1.6)	536 (1.4)	1695 (1.1)	4 (0.1)	302 (1.2)
<b>Formosa</b>	10008 (3.6)	5004 (3.6)	5004 (3.6)	709 (1.2)	1447 (3.8)	481 7 (3.2)	2047 (54.5)	988 (3.8)
<b>Jujuy</b>	2360 (0.8)	1180 (0.8)	1180 (0.8)	567 (0.9)	559 (1.5)	956 (0.6)	2 (0.1)	276 (1.1)
<b>La Pampa</b>	6848 (2.5)	3424 (2.5)	3424 (2.5)	1039 (1.7)	413 (1.1)	4822 (3.2)	28 (0.7)	546 (2.1)
<b>La Rioja</b>	1208 (0.4)	604 (0.4)	604 (0.4)	154 (0.3)	109 (0.3)	842 (0.6)	8 (0.2)	95 (0.4)
<b>Mendoza</b>	6762 (2.4)	3381 (2.4)	3381 (2.4)	1769 (2.9)	1243 (3.3)	3120 (2.1)	5 (0.1)	625 (2.4)
<b>Misiones</b>	450 (0.2)	225 (0.2)	225 (0.2)	170 (0.3)	91 (0.2)	119 (0.1)	11 (0.3)	59 (0.2)
<b>Neuquén</b>	1004 (0.4)	502 (0.4)	502 (0.4)	299 (0.5)	184 (0.5)	390 (0.3)	5 (0.1)	126 (0.5)
<b>Río Negro</b>	1946 (0.7)	973 (0.7)	973 (0.7)	527 (0.9)	270 (0.7)	950 (0.6)	9 (0.2)	190 (0.7)
<b>Salta</b>	4260 (1.5)	2130 (1.5)	2130 (1.5)	1435 (2.4)	808 (2.1)	1526 (1.0)	14 (0.4)	477 (1.9)
<b>San Juan</b>	7906 (2.8)	3953 (2.8)	3953 (2.8)	1294 (2.1)	1297 (3.4)	4630 (3.1)	8 (0.2)	677 (2.6)
<b>San Luis</b>	4128 (1.5)	2064 (1.5)	2064 (1.5)	797 (1.3)	355 (0.9)	2627 (1.7)	10 (0.3)	339 (1.3)
<b>Santa Cruz</b>	992 (0.4)	496 (0.4)	496 (0.4)	208 (0.3)	161 (0.4)	530 (0.4)	14 (0.4)	79 (0.3)
<b>Santa Fe</b>	13956 (5.0)	6978 (5.0)	6978 (5.0)	2620 (4.4)	1490 (3.9)	8658 (5.7)	21 (0.6)	1167 (4.5)
<b>Santiago del Estero</b>	1552 (0.6)	776 (0.6)	776 (0.6)	241 (0.4)	208 (0.5)	927 (0.6)	2 (0.1)	174 (0.7)
<b>Tierra del Fuego</b>	310 (0.1)	155 (0.1)	155 (0.1)	67 (0.1)	35 (0.1)	174 (0.1)	3 (0.1)	31 (0.1)
<b>Tucumán</b>	11596 (4.2)	5798 (4.2)	5798 (4.2)	2925 (4.9)	2464 (6.5)	5214 (3.5)	5 (0.1)	988 (3.8)

**Table D:** Bootstrapping based-confidence intervals versus main analysis.

Age group	Study period	Main analysis VE (CI 95%)	Bootstrapping based VE (Q2.5-Q97.5)
All ages	Delta period	64.2 (61.7 to 66.5)	64.1 (62.3 to 65.9)
	Omicron period	19.9% (18.0 to 21.8)	19.9% (18.5 to 21.4)
3-11 years old	Delta period	61.2 (56.4 to 65.6)	61.2 (57.7 to 64.3)
	Omicron period	16.0 (13.2 to 18.6)	16.0 (13.8 to 17.9)
12-17 years old	Delta period	66.8 (63.9 to 69.5)	66.8 (64.8 to 68.9)
	Omicron period	26.0 (23.2 to 28.8)	26.1 (23.9 to 28.1)

**Table E:** VE by days since last dose, age group and study period.

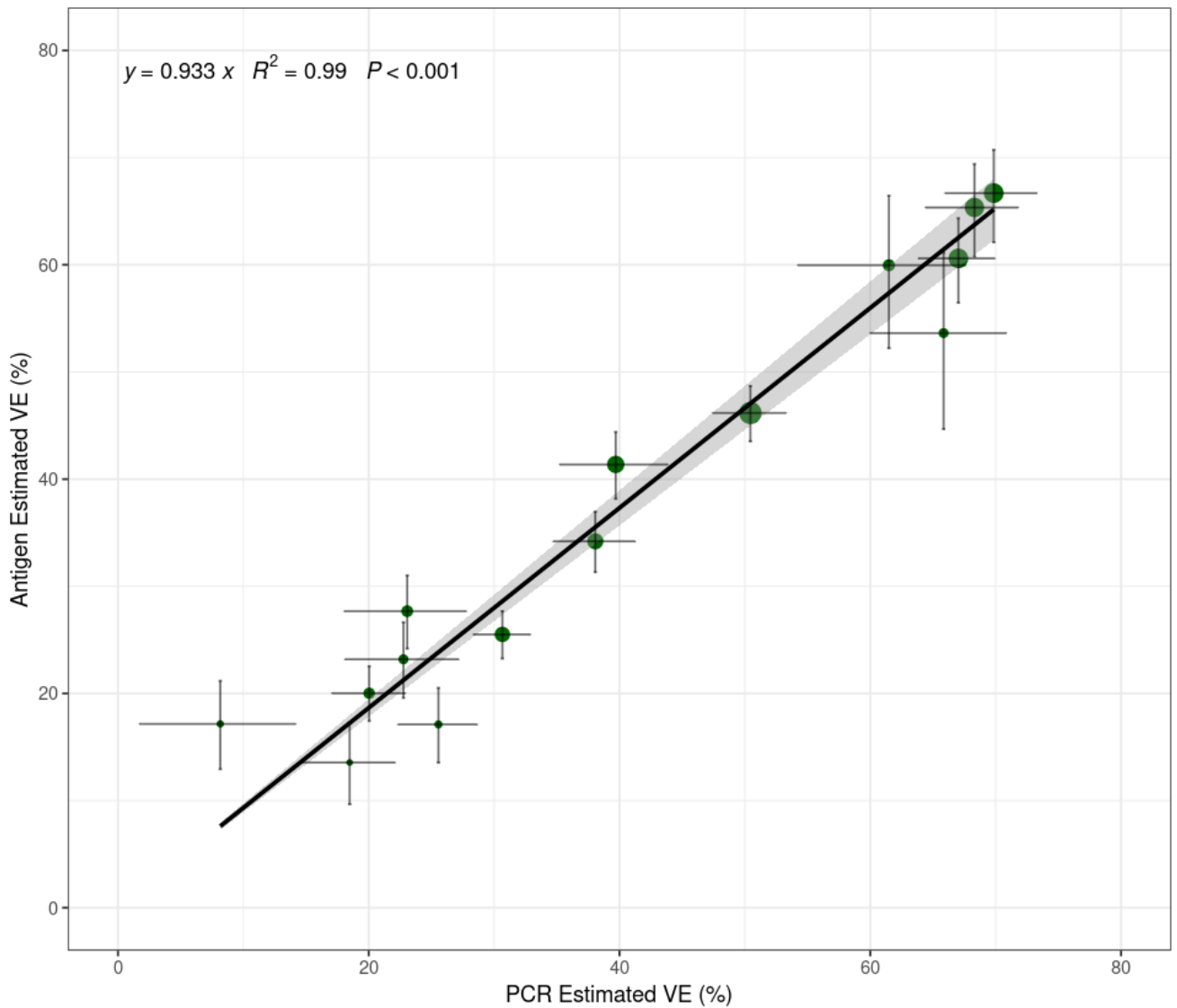
Days since last dose	Delta period		Omicron period	
	3-11 years old VE (CI 95%)	12-17 years old VE (CI 95%)	3-11 years old VE (CI 95%)	12-17 years old VE (CI 95%)
15-30	68.4 (64.1 to 72.2)	74.8 (71.3 to 77.9)	37.6 (34.2 to 40.8)	55.8 (52.4 to 59.0)
31-45	55.5 (48.2 to 61.8)	64.9 (60.3 to 68.9)	29.4 (26.2 to 32.4)	43.7 (40.3 to 46.9)
45-60	51.7 (32.8 to 65.3)	58.7 (53.0 to 63.7)	17.6 (14.1 to 20.9)	29.6 (25.9 to 33.1)
60+	65.2 (44.0 to 78.4)	56.3 (50.2 to 61.7)	2.0 ( -1.8 to 5.6)	12.4 (8.6 to 16.1)

**Table F:** Subanalysis VE (CI95%) by study period, age group, days since 2nd dose and test and type of test.

		PCR solely based VE estimation			Antigen solely based VE estimation	
		VE	CI95%	VE	CI95%	
Overall period	All ages	30.7	28.3	32.9	25.5	(23.3 to 27.7)
	3-11 years old	25.6	22.3	28.7	17.1	(13.6 to 20.5)
	12-17 years old	38.1	34.7	41.3	34.2	(31.3 to 37.0)
Delta period	All ages	67.0	63.8	70.0	60.6	(56.5 to 64.6)
	3-11 years old	65.9	60.0	70.9	53.6	(44.7 to 61.1)
	12-17 years old	68.3	64.4	71.8	65.4	(60.8 to 69.4)
Omicron period	All ages	20.0	17.1	22.9	20.0	(17.4 to 22.5)
	3-11 years old	18.5	14.7	22.1	13.6	(9.7 to 17.3)

	12-17 years old	23.1	18.0	27.8	27.7	(24.2 to 31.0)
<b>Overall period</b> (12-17 years old)	15-59 days between 2nd dose and test	50.4	47.4	53.3	46.2	(43.5 to 48.7)
	≥60 days between 2nd dose and test	22.8	18.1	27.2	23.2	(19.6 to 26.6)
<b>Delta period</b> (12-17 years old)	15-59 days between 2nd dose and test	69.9	66.0	73.3	66.7	(62.1 to 70.7)
	≥60 days between 2nd dose and test	61.5	54.2	67.6	60.0	(52.2 to 66.5)
<b>Omicron period</b> (12-17 years old)	15-59 days between 2nd dose and test	39.7	35.2	43.9	41.4	(38.2 to 44.4)
	≥60 days between 2nd dose and test	8.2	1.7	14.2	17.2	(12.9 to 21.2)

**Figure A.** Association between PCR and antigen-based VE estimations. Each point depicts one subanalysis shown on Table S5. Dot size is inversely related to antigen-based confidence interval width. The black line shows the weighted linear regression and its equation and significance are shown in the upper left.



Weighted linear regression for antigen-based as a function of PCR-based estimates of VE. Weights as the reciprocal of the relative width of the IC are represented in the size of the points

**Table G:** Positivity assumption sensitivity analysis.

Age group	Main results (N)	Sensitivity analysis (N)	Main results VE (CI 95%)	Sensitivity analysis VE (CI 95%)
All ages	46953	37775	64.2 (61.7 to 66.5)	65.0 (62.5 to 67.3)
3-11 years old	19190	10242	61.2 (56.4 to 65.6)	62.7 (57.9 to 66.9)
12-17 years old	27763	27533	66.8 (63.9 to 69.5)	66.8 (63.8 to 69.5)

**Table H:** Previous infection sensitivity analysis (VE-CI95%).

Study period	Age Group	Main result VE (CI 95%)	Sensitivity analysis VE (CI 95%)
Delta period	All ages	64.2 (61.7 to 66.5)	64.1 (61.4 to 66.5)
	3-11 years old	61.2 (61.7 to 66.5)	61.8 (56.9 to 66.2)
	12-17 years old	66.8 (63.9 to 69.5)	66.5 (63.3 to 69.3)
Omicron period	All ages	19.9 (18.0 to 21.8)	19.1 (17.1 to 21.1)
	3-11 years old	16.0 (13.2 to 18.6)	15.4 (12.7 to 18.2)
	12-17 years old	26.0 (23.2 to 28.8)	25.2 (22.1 to 28.1)