

Article title

Estimates of protection levels against SARS-CoV-2 infection and severe COVID-19 in Germany before the 2022/2023 winter season - the IMMUNEBRIDGE project

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Authors

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Analogous to the current communication of the Robert Koch Institute as well as existing systematic reviews, meta-analyses, compilations of individual studies, and selected individual studies of the last few weeks, a translation of the antibody responses into protective profiles was also carried out in IMMUNEBRIDGE by means of a targeted literature synthesis on the protective effect of different exposure regimens and using epidemiological accompanying data as described above. This interpretation is exploratory and only usable under strong assumptions.

Targeted literature synthesis on the protective effect of different exposure combinations (summary)
 Within the framework of IMMUNEBRIDGE, a targeted literature synthesis was carried out. The aim was to provide a systematic overview based on the currently available studies of the protection against infection and severe illness by the different omicron variants depending on various combinations of SARS-CoV-2 immunity by vaccination and/or previous infection. Table S1 shows the research question according to the PICOS scheme. The focus was on vaccines licensed in Germany (Comirnaty/BNT162b2; Spikevax/mRNA-1273; Vaxzevria/ChAdOx1nCoV-19; JCOVDEN; Nuvaxovid). Risk groups such as chronically ill or immunosuppressed persons were explicitly included. Studies that exclusively examine healthcare workers or pregnant women were excluded.

Supplement 2 Table S1: Research questions of the systematic review (P Population, I (E) Intervention (Exposure), C Comparator, O Outcome, S Study design)

P	General population of all ages, people at increased risk of severe COVID-19 disease
I (E)	Different combinations of vaccination against SARS-CoV-2, infection with SARS-CoV-2, and seroprevalence of antibodies against S and N antigen of SARS-CoV-2
C	Individuals without vaccination/with lower numbers of vaccinations, without previous SARS-CoV-2 infection, without SARS-CoV-2 antibodies
O	Asymptomatic or symptomatic infection, severe COVID-19 disease (hospital admission, intensive care therapy), death from omicron variant
S	Randomised controlled trials, observational studies, population- or hospital-based studies

Studies were identified via the VIEW-hub (last accessed on December 1, 2022), through which the International Vaccine Access Center, the Johns Hopkins Bloomberg School of Public Health, the World Health Organization, and the Coalition for Epidemic Preparedness Innovations provide a weekly online compilation of vaccine effectiveness studies based on a systematic search of preprint and published literature. A data extraction table was used to systematically collect information on study design, setting, population, and results on vaccine effectiveness (VE). The data was extracted by one person and checked by a second person. The data were synthesized qualitatively; a subsequent meta-analysis was not performed due to the great heterogeneity between the studies. The results are presented in tables (summary of the ranges of the point estimates) and in forest plots.

Data were stratified by several parameters:

- age group (children/adolescents, adults 18-60 years, adults 60+)
- number of past vaccinations and/or infections
- reference group (not vaccinated, less vaccinated than comparison group)
- outcome (infection, severe disease, death)
- comorbidities (general population vs. diseased)
- days post exposure (=last vaccination or infection: < 14, 14-90, 90-180, > 180 Tage)

Results

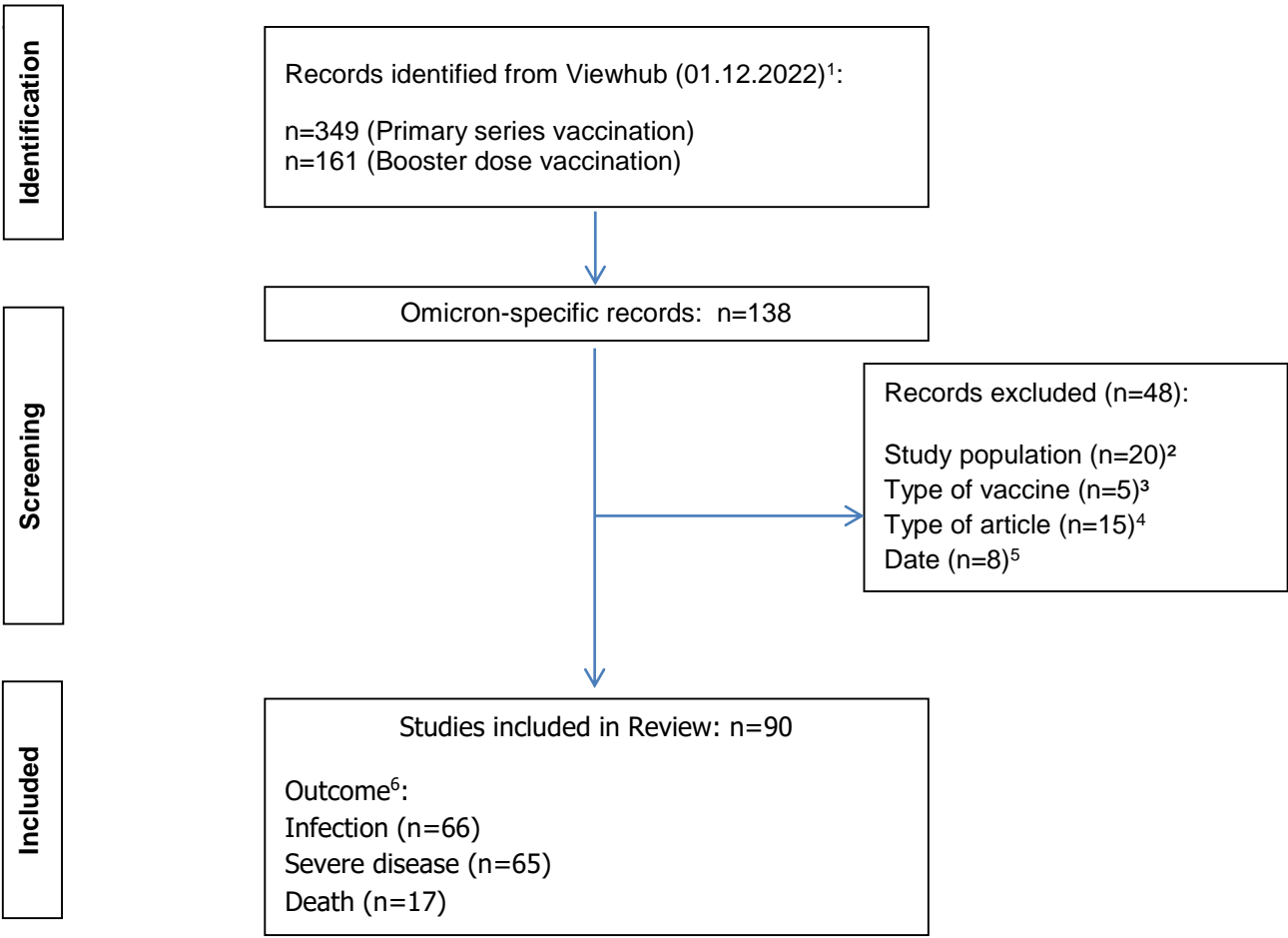
In total, we included 90 studies, (see flow chart in Supplement 2 Figure S1), of those 24 studies examined children and adolescents, 53 adults above 18 years, and 28 adults above 60 years. Supplement 2 Table S2 provides an overview of the characteristics of the studies. The most frequently used study design was the test-negative case-control design, followed by retrospective cohort studies that mostly used registered or health claim based data. The older the study populations were, the more they examined higher exposure groups, and outcomes on severe disease or death. Almost half of the studies were published as preprints. Studies on children and adolescents mainly came from North

America (n=9), Asia and Europe (each n=5). Studies on adults predominantly were from the US (n=24), followed by Europe and Asia (each n=11), among the Asian studies five came from Qatar. Studies on older adults mostly took place in North America (each n=5 in the US, and Canada) and Israel (n=6)

There is a high degree of heterogeneity due to differences in populations, vaccines and vaccine combinations, number of vaccinations, time period after last vaccination, survey of exposure (self-reported, documented, PCR test, antigen test, antibody test), definition of outcome (asymptomatic, positive test, severe disease, hospitalisation, intensive care treatment), study design (prospective or retrospective cohort study, case-control study, test-negative case-control study), analysis procedure, and consideration of covariates. Supplement 2 Tables S3, S4 and S5 qualitatively summarise the results on vaccine effectiveness from the primary studies identified so far for the different time periods after last exposure. Detailed results are presented in forest plots (Figures SF2-36) that are stratified by outcome, population group, exposure and reference group.

From the qualitative synthesis of results from studies on adult populations without special attention to risk groups, there is evidence of increasing protection analogous to the defined four categories based on vaccination, infection, and antibody status. With the same vaccination or immune status, there is a higher protection against severe COVID-19 diseases compared to asymptomatic infections. Protection is highest 14 days to 3 months after the last exposure and then decreases again. This waning effect seems to be higher in older adults and higher for protection from infections rather than from severe course of disease. Compared to previously published systematic reviews, the added value of this review lies in the timeliness and number of identified studies, the differentiation of infection protection according to the time period after the last exposure, different reference groups, and, in particular, the consideration of different age groups.

Supplement 2 Figure S1: Flow chart of the literature search



¹ <https://view-hub.org/covid-19/effectiveness-studies>
² Health care workers, prisoners, pregnant people, infants
³ CoronaVac, Ad5-nCoV, BBIBP-CorV
⁴ Letter, Editorial, Correspondence, Report, Comment
⁵ before 12.02.2022 (RKI Review)
⁶ Multiple outcomes possible

Supplement 2 Table S2: Characteristics of the included studies from the review (n=90)

		Children and adolescents	Adults 18+	Adults 60+
		n	n	n
Total ¹		24	53	28
Country	USA	5	24	5
	Canada	4	3	5
	Argentina	2	1	
	Brazil	1	1	
	Chile		1	
	Hongkong	1	2	3
	Israel	2	1	6
	Quatar	1	5	
	Japan	1	2	1
	Singapore	2	1	
	UK, Scotland	2	3	3
	Sweden	1		
	Finland			1
	Norway	1		
	Denmark		4	1
	Czech		1	
	Italy	1		1
	France		1	
	Iceland		1	
	Spain		1	1
	Portugal			1
	Australia		1	
Exposure ²	3+	2	16	16
	3	9	52	21
	1-3	24	35	15
Outcome ²	Infection	18	33	19
	Severe disease	11	37	21
	Death	1	9	9
Preprint		10	28	13
Study design	Prospective cohort	2	4	2
	Retrospective cohort	8	16	9
	Case control study		2	3
	Test negative design (CCS)	13	30	11
	Target trial emulation, cohort	1	1	3

¹Total sum of included studies is n=90, calculated sum exceeds this due to some studies examining more than one subpopulation, i.e. children/adolescents, adults 18+, or adults 60+.

² Multiple answers possible

Supplement 2 Table S3: Overview of protective effects (VE, vaccine effectiveness) against SARS-CoV-2 found in the literature: General population (adults > 18 years)

Exposure	VE ³ against	VE no information ⁴	VE 0<14 days	VE 14-90 days	VE 91-180 days	VE >180 days
3+ Exposures	Infection ²	34-83% (n=5) ⁵ 47-96% (n=2) ⁶	36% (n=1)	20-92% (n=4) ⁵ 43-81% (n=1) ⁶	5-82% (n=4) ⁵ -38-66% (n=2) ⁶	
	Severe Course ¹	68-100% (n=5) ⁵		44-98% (n=5) ⁵	37-86% (n=2) ⁵	
	Death	81% (n=1) ⁵				
3 Exposures	Infection ²	-7-78% (n=16) ⁵ -4-96% (n=8) ⁶	18-69% (n=6) ⁵	1-91% (n=17) ⁵ -8-91% (n=8) ⁶	5-67% (n=8) ⁵ -23-62% (n=4) ⁶	-25-55% (n=3) ⁵ -20-50% (n=3) ⁶
	Severe Course ¹	31-99% (n=9) ⁵ 44-89% (n=5) ⁷	65-96% (n=4) ⁵	31-97% (n=10) ⁵ 44-98% (n=4) ⁷	29-95% (n=14) ⁵ 45-83% (n=2) ⁷	31-88% (n=3) ⁵ 84-89% (n=1) ⁷
	Death	87-98% (n=3) ⁵ 75-86% (n=1) ⁷	71-86% (n=1) ⁵	78-88% (n=3) ⁵ 75-99% (n=2) ⁷	74-87% (n=2) ⁵	77% (n=1) ⁵
1-3 Exposures	Infection ²	-46-65% (n=12) ⁵	10-23% (n=2) ⁵	8-55% (n=13) ⁵	1-54% (n=10) ⁵	-14-52% (n=11) ⁵
	Severe Course ¹	33-86% (n=11) ⁵		-9-96% (n=15) ⁵	24-87% (n=14) ⁵	12-92% (n=9) ⁵
	Death	66-90% (n=4) ⁵	-9-29% (n=1) ⁵	60-62% (n=2) ⁵	57-70% (n=1) ⁵	49-57% (n=2) ⁵

¹ Different definitions were used for severe course: Hospitalization, treatment in intensive care, and/or death.
² Different definitions were used for infection: any, symptomatic, documented
³ VE, Vaccine effectiveness; Range of point estimates of n included studies is provided, stratified for days post exposure
⁴ No information on time after last exposure
⁵ Reference group: no exposure (vaccination and/or infection)
⁶ Reference group: 3 exposures
⁷ Reference group: 2 exposures

Supplement 2 Table S4: Overview of protective effects (VE, vaccine effectiveness) against SARS-CoV-2 found in the literature: Older adults (>60 years)

Exposure	VE ³ against	VE no information ⁴	VE <14 days	VE 14-90 days	VE 91-180 days	VE >180 days
3+ Exposures	Infection ²	49-81% (n=2) ⁵ 36% (n=1) ⁶	33-58% (n=2) ⁶	19-69% (n=2) ⁵ 8-81% (n=7) ⁶	36-60% (n=1) ⁵ -5-18% (n=1) ⁶	18-44% (n=1) ⁵ -24- -15% (n=1) ⁶
	Severe Course ¹	86% (n=1) ⁵ 64-72% (n=2) ⁶	86-98% (n=1) ⁵ 58% (n=1) ⁶	47-94% (n=4) ⁵ 8-89% (n=8) ⁶	78-89% (n=2) ⁵ 23-28% (n=1) ⁶	74% (n=1) ⁵ 6% (n=1) ⁶
	Death	49-82% (n=1) ⁵ 56-78% (n=3) ⁶		76-90% (n=2) ⁶		
3 Exposures	Infection ²	48-67% (n=2) ⁵ 30-47% (n=3) ⁷	58-66% (n=1) ⁵	-27-76% (n=6) ⁵ 54-58% (n=1) ⁷	23-56% (n=3) ⁵	
	Severe Course ¹	47-91% (n=5) ⁵ 16-64% (n=3) ⁷	66-95% (n=2) ⁵	51-98% (n=8) ⁵ 57-68% (n=1) ⁷	38-91% (n=6) ⁵ 65-66% (n=1) ⁷	75-85% (n=1) ⁵ 68% (n=1) ⁷
	Death	64-98% (n=3) ⁵ 13-86% (n=3) ⁷		96-98% (n=1) ⁵		
1-3 Exposures	Infection ²	3-79% (n=3) ⁵		-70-56% (n=3) ⁵	24-46% (n=2) ⁵	4-20% (n=2) ⁵
	Severe Course ¹	39-82% (n=4) ⁵		45-98% (n=5) ⁵	31-92% (n=3) ⁵	46-84% (n=3) ⁵
	Death	51-91% (n=3) ⁵		68-93% (n=1) ⁵		

¹ Different definitions were used for severe course: Hospitalization, treatment in intensive care, and/or death.
² Different definitions were used for infection: any, symptomatic, documented
³ VE, Vaccine effectiveness; Range of point estimates of n included studies is provided, stratified for days post exposure
⁴ No information on time after last exposure
⁵ Reference group: no exposure (vaccination and/or infection)
⁶ Reference group : 3 exposures
⁷ Reference group : 2 exposures

Supplement 2 Table S5: Overview of protective effects (VE, vaccine effectiveness) against SARS-CoV-2 found in the literature: Children and adolescents (5-17 years)

Exposure	VE ³ against	VE no information ⁴	VE <14 days	VE 14-90 days	VE 91-180 days	VE >180 days
3+ Exposures	Infection ²	96% (n=1) ⁵	78-90% (n=1) ⁵	80-90% (n=1) ⁵		
	Severe Course ¹					
	Death					
3 Exposures	Infection ²	38-79% (n=5) ⁵	55-96% (n=5) ⁵	30-91% (n=4) ⁵ 76% (n=1) ⁶	34-96% (n=1) ⁵	29-76% (n=1) ⁵
	Severe Course ¹					
	Death					
1-3 Exposures	Infection ²	-2-78% (n=9) ⁵	-18-88% (n=6) ⁵	-34-85% (n=15) ⁵	-25-86% (n=13) ⁵	-2-90% (n=4) ⁵
	Severe Course ¹	33-85% (n=10) ⁵	21-65% (n=1) ⁵	34-94% (n=8) ⁵	-3-92% (n=5) ⁵	16-88% (n=3) ⁵
	Death	98% (n=1) ⁵				

¹ Different definitions were used for severe course: Hospitalization, treatment in intensive care, and/or death.
² Different definitions were used for infection: any, symptomatic, documented
³ VE, Vaccine effectiveness; Range of point estimates of n included studies is provided, stratified for days post exposure
⁴ No information on time after last exposure
⁵ Reference group: no exposure (vaccination and/or infection)
⁶ Reference group: 3 exposures

Forest Plots

Supplement 2 Table S6: Stratification of study results

Feature	Category	Explanation
Outcome	Infection	Any, a-/symptomatic, documented, confirmed
	Severe disease	Hospitalisation, intensive care use, death
	Death	All cause mortality, COVID-19 related mortality (within 30 days after infection)
Population	General population	Adults 18-59 years, all ages (studies without age specification)
	Older adults	60+ years
	Children and adolescents	5-17 years
Exposure	3+ exposures	More than 3 exposures (vaccination or infection, thereof one in 2022)
	3 exposures	3 exposures (vaccination or infection)
	1-3 exposures	1-2 exposures (vaccination or infection)
Reference	Unvaccinated	No vaccination and/or infection
	Less exposures	Less vaccinations/infections
Time after last exposure	No information	No specification of time after last exposure
	<14 days post exposure	Within 2 weeks after exposure
	14-90 days post exposure	Up to ~ 3 months after exposure
	91-180 days post exposure	~ 3 to 6 months after exposure
	>180 days post exposure	More than ~ 6 months after exposure

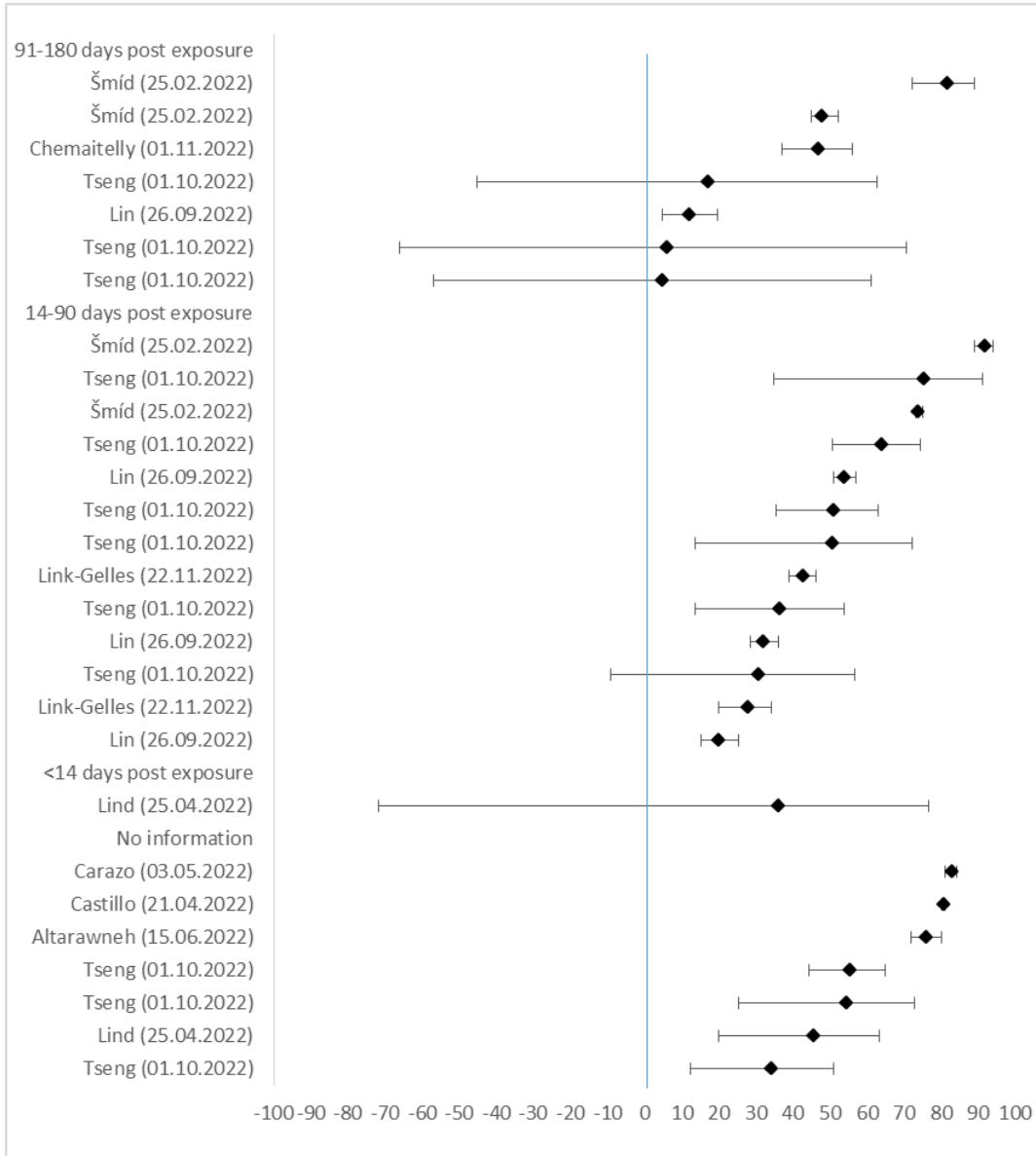
Multiple naming of a study within a forest plot is possible, due to further stratification within the study, e.g. for: Vaccine type, Omicron subvariant, combination of exposures, more than one time period within a category of time after exposure, reported outcome

Supplement 2 Table S7: List of figures of forest plots:

SF2	Infection: General population (adults 18+ years), Exposure 3+, Reference unvaccinated (n=9)
SF3	Infection: General population (18+ years); Exposure 3+, Reference less exposures (3 exposures) (n=4)
SF4	Infection: General population (adults 18+ years), Exposure 3, Reference unvaccinated (n=24)
SF5	Infection: General population (adults 18+), Exposure 3, Reference less exposures (2 exposures) (n=14)
SF6	Infection: General population (adults 18+), Exposure 1-3, Reference unvaccinated (n=21)
SF7	Infection: Older adults (60+ years), Exposure 3+, Reference unvaccinated (n=4)
SF8	Infection: Older adults (60+ years), Exposure 3+, Reference less exposures (3 exposures) (n=8)
SF9	Infection: Older adults (60+ years), Exposure 3, Reference unvaccinated (n=9)
SF10	Infection: Older adults (60+ years), Exposure 3, Reference less exposures (2 exposures) (n=4)
SF11	Infection: Older adults (60+ years), Exposure 1-3, Reference unvaccinated (n=8)
SF12	Infection: Children and adolescents (5-17 years), Exposure 3+, Reference unvaccinated (n=2)
SF13	Infection: Children and adolescents (5-17 years), Exposure 3, Reference unvaccinated (n=7)
SF14	Infection: Children and adolescents (5-17 years), Exposure 3, Reference less exposures (2 exposures) (n=1)
SF15	Infection: Children and adolescents (5-17 years), Exposure 1-3, Reference unvaccinated (n=17)
SF16	Severe disease: General population (adults 18+ years), Exposure 3+, Reference unvaccinated (n=10)
SF17	Severe disease: General population (adults 18+ years), Exposure 3, Reference unvaccinated (n=24)

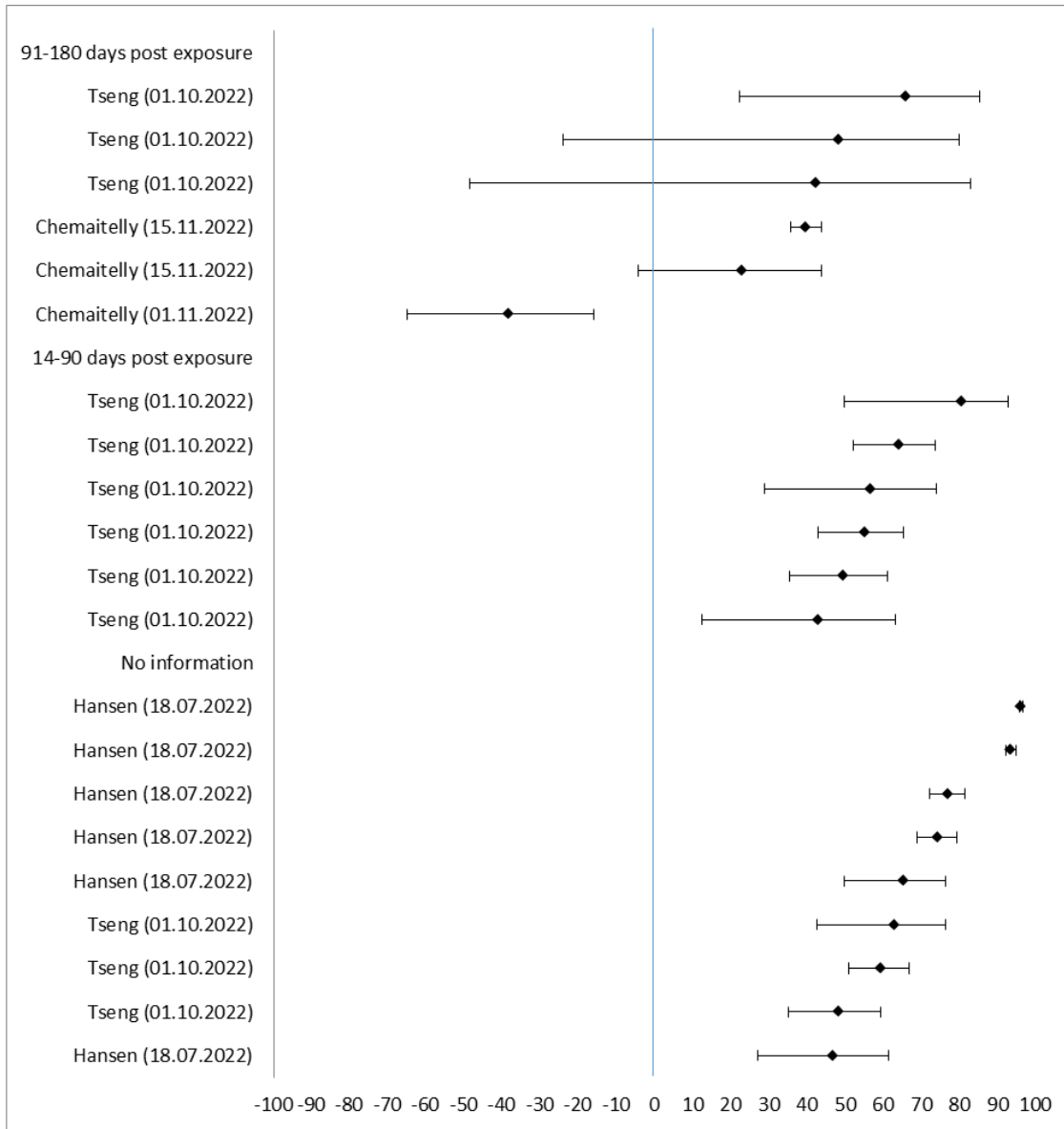
SF18	Severe disease: General population (adults 18+), Exposure 3, Reference less exposures (2 exposures) (n=9)
SF19	Severe disease: General population (adults 18+ years), Exposure 1-3, Reference unvaccinated (n=23)
SF20	Severe disease: Older adults (60+ years), Exposure 3+, Reference unvaccinated (n=4)
SF21	Severe disease: Older adults (60+ years), Exposure 3+, Reference less exposures (3 exposures) (n=10)
SF22	Severe disease: Older adults (60+ years), Exposure 3, Reference unvaccinated (n=12)
SF23	Severe disease: Older adults (60+ years), Exposure 3, Reference less exposures (2 exposures) (n=4)
SF24	Severe disease: Older adults (60+ years), Exposure 1-3, Reference unvaccinated (n=11)
SF25	Severe disease: Children and adolescents (5-17 years), Exposure 3, Reference vaccinated (n=4)
SF26	Severe disease: Children and adolescents (5-17 years), Exposure 1-3, Reference unvaccinated (n=11)
SF27	Death: General population (adults 18+ years), Exposure 3+, Reference unvaccinated (n=1)
SF28	Death: General population (adults 18+ years), Exposure 3, Reference unvaccinated (n=6)
SF29	Death: General population (adults 18+ years), Exposure 3, Reference less exposures (2 exposures) (n=3)
SF30	Death: General population (adults 18+ years), Exposure 1-3, Reference unvaccinated (n=4)
SF31	Death: Older adults (60+ years), Exposure 3+, Reference unvaccinated (n=1)
SF32	Death: Older adults (60+ years), Exposure 3+, Reference less exposures (3 exposures) (n=5)
SF33	Death: Older adults (60+ years), Exposure 3, Reference unvaccinated (n=4)
SF34	Death: Older adults (60+ years), Exposure 3, Reference less exposures (2 exposures) (n=3)
SF35	Death: Older adults (60+ years), Exposure 1-3, Reference unvaccinated (n=4)
SF36	Death: Children and adolescents (5-17 years), Exposure 1-3, Reference unvaccinated (n=1)

SF2: Infection: General population (adults 18+ years), Exposure 3+, Reference unvaccinated (n=9)



Author (Date)	VE in %	lower CI 95%	upper CI 95%
91-180 days post exposure			
Šmíd (25.02.2022)	82,0	72,0	89,0
Šmíd (25.02.2022)	48,0	45,0	52,0
Chemaitelly (01.11.2022)	47,0	37,0	56,0
Tseng (01.10.2022)	17,3	-45,3	62,6
Lin (26.09.2022)	12,4	4,6	19,5
Tseng (01.10.2022)	6,3	-66,3	70,4
Tseng (01.10.2022)	5,0	-56,9	61,1
14-90 days post exposure			
Šmíd (25.02.2022)	92,0	89,0	94,0
Tseng (01.10.2022)	75,7	34,7	91,0
Šmíd (25.02.2022)	74,0	73,0	75,0
Tseng (01.10.2022)	64,3	50,7	74,2
Lin (26.09.2022)	53,9	50,8	56,8
Tseng (01.10.2022)	51,1	35,5	63,0
Tseng (01.10.2022)	50,9	13,4	72,1
Link-Gelles (22.11.2022)	43,0	39,0	46,0
Tseng (01.10.2022)	36,7	13,6	53,6
Lin (26.09.2022)	32,3	28,5	35,9
Tseng (01.10.2022)	30,8	-9,2	56,5
Link-Gelles (22.11.2022)	28,0	20,0	34,0
Lin (26.09.2022)	20,3	15,2	25,2
<14 days post exposure			
Lind (25.04.2022)	36,3	-71,8	76,4
No information			
Carazo (03.05.2022)	83,0	81,0	84,0
Castillo (21.04.2022)	81,0	80,0	81,0
Altarawneh (15.06.2022)	76,3	71,7	80,1
Tseng (01.10.2022)	55,7	44,2	64,9
Tseng (01.10.2022)	54,8	25,1	72,7
Lind (25.04.2022)	45,8	20,0	63,2
Tseng (01.10.2022)	34,3	12,2	50,8

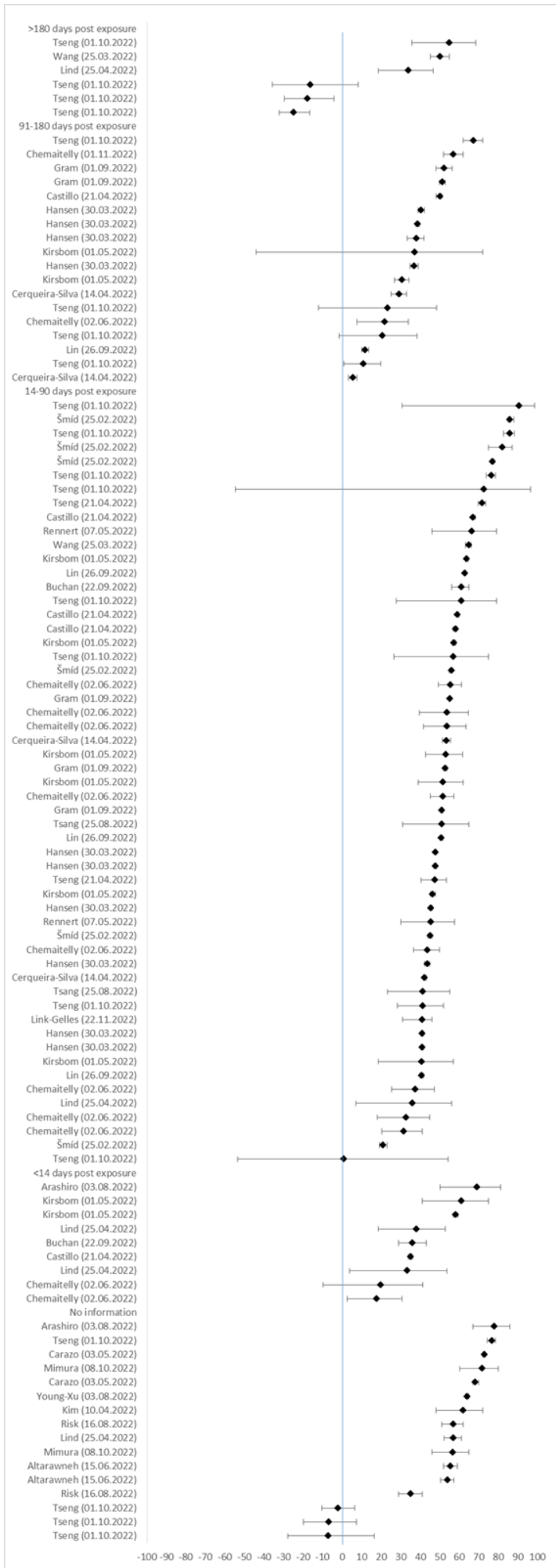
SF3: Infection: General population (18+ years); Exposure 3+, Reference less exposures (3 exposures) (n=4)



Author (date)	VE in %	lower CI 95%	upper CI 95%
91-180 days post exposure			
Tseng (01.10.2022)	66,1	22,1	85,3
Tseng (01.10.2022)	48,4	-24,2	79,8
Tseng (01.10.2022)	42,4	-48,5	82,9
Chemaitelly (15.11.2022)	39,8	35,7	43,6
Chemaitelly (15.11.2022)	23,2	-4,5	43,7
Chemaitelly (01.11.2022)	-38,0	-65,0	-16,0
14-90 days post exposure			
Tseng (01.10.2022)	80,8	49,6	92,7
Tseng (01.10.2022)	64,3	52,0	73,5
Tseng (01.10.2022)	56,9	28,8	73,9
Tseng (01.10.2022)	55,4	42,9	65,1
Tseng (01.10.2022)	49,8	35,3	61,1
Tseng (01.10.2022)	43,2	12,4	63,1
No information			
Hansen (18.07.2022)	96,3	95,8	96,7
Hansen (18.07.2022)	93,6	92,1	94,8
Hansen (18.07.2022)	77,2	72,2	81,3
Hansen (18.07.2022)	74,5	68,7	79,2
Hansen (18.07.2022)	65,4	49,8	76,2
Tseng (01.10.2022)	63,0	42,5	76,2
Tseng (01.10.2022)	59,6	50,9	66,8
Tseng (01.10.2022)	48,5	35,0	59,1
Hansen (18.07.2022)	46,9	27,0	61,3

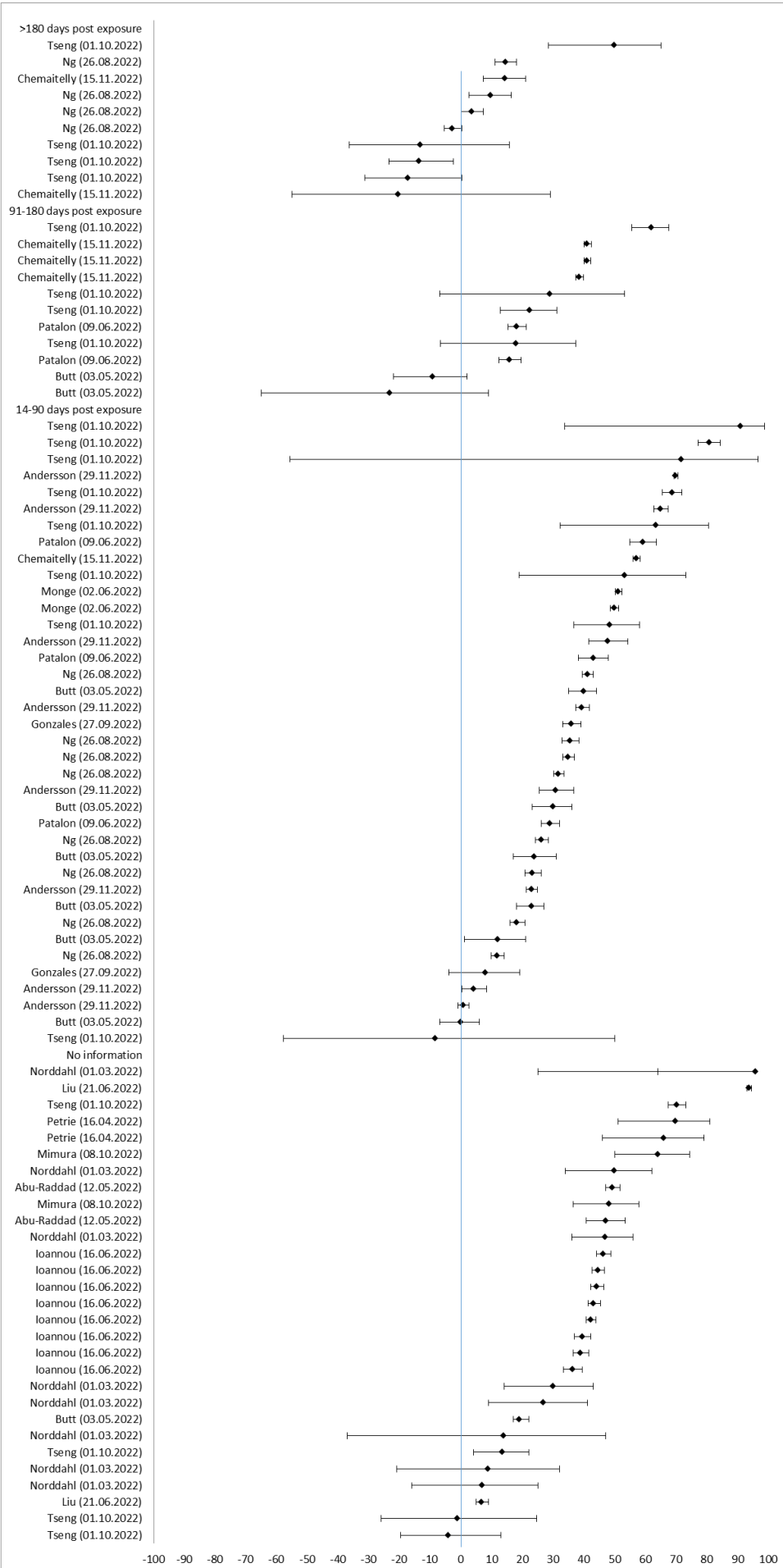
SF4:Infection: General population (adults 18+ years), Exposure 3, Reference unvaccinated (n=24)

Author (Date)	VE in %	lower CI 95%	upper CI 95 %			
				Hansen (30.03.2022)	41,0	40,3 41,7
				Hansen (30.03.2022)	41,0	40,5 41,5
				Kirsbom (01.05.2022)	40,8	18,6 56,9
				Lin (26.09.2022)	40,6	39,7 41,6
				Chemaitelly (02.06.2022)	37,3	25,4 47,3
				Chemaitelly (02.06.2022)	32,6	17,8 44,8
				Chemaitelly (02.06.2022)	31,5	20,3 41,1
				Šmíd (25.02.2022)	21,0	19,0 23,0
				Tseng (01.10.2022)	0,7	-53,6 54,2
				<14 days post exposure		
				Arashiro (03.08.2022)	69,0	50,0 81,0
				Kirsbom (01.05.2022)	61,2	40,9 74,9
				Kirsbom (01.05.2022)	58,2	57,0 59,4
				Lind (25.04.2022)	38,1	18,6 52,9
				Buchan (22.09.2022)	36,0	29,0 43,0
				Castillo (21.04.2022)	35,0	34,0 36,0
				Lind (25.04.2022)	33,2	3,7 53,6
				Chemaitelly (02.06.2022)	19,7	-9,7 41,2
				Chemaitelly (02.06.2022)	17,7	2,5 30,6
				No information		
				Arashiro (03.08.2022)	78,0	67,0 86,0
				Tseng (01.10.2022)	76,6	74,4 78,6
				Carazo (03.05.2022)	73,0	72,0 73,0
				Mimura (08.10.2022)	71,8	60,1 80,1
				Carazo (03.05.2022)	68,0	67,0 70,0
				Young-Xu (03.08.2022)	64,0	63,0 65,0
				Kim (10.04.2022)	62,0	48,0 72,0
				Risk (16.08.2022)	57,0	51,0 62,0
				Lind (25.04.2022)	56,9	52,1 61,2
				Mimura (08.10.2022)	56,5	46 65
				Altarawneh (15.06.2022)	55,5	51,8 59,0
				Altarawneh (15.06.2022)	54,0	50,4 57,3
				Risk (16.08.2022)	35,0	29,0 41,0
				Tseng (01.10.2022)	-2,2	-10,5 6,4
				Tseng (01.10.2022)	-7,0	-19,8 7,2
				Tseng (01.10.2022)	-7,2	-27,9 16,4
>180 days post exposure						
Tseng (01.10.2022)	54,9	35,6	68,4			
Wang (25.03.2022)	50,0	45,0	55,0			
Lind (25.04.2022)	34,0	18,5	46,5			
Tseng (01.10.2022)	-16,4	-35,8	8,2			
Tseng (01.10.2022)	-17,9	-29,6	-4,2			
Tseng (01.10.2022)	-24,9	-32,3	-16,7			
91-180 days post exposure						
Tseng (01.10.2022)	67,3	62,0	71,9			
Chemaitelly (01.11.2022)	57,0	52,0	62,0			
Gram (01.09.2022)	52,3	48,0	56,2			
Gram (01.09.2022)	51,3	49,8	52,7			
Castillo (21.04.2022)	50,0	48,0	51,0			
Hansen (30.03.2022)	40,5	38,9	42,2			
Hansen (30.03.2022)	38,6	37,7	39,5			
Hansen (30.03.2022)	37,9	33,4	42,0			
Kirsbom (01.05.2022)	37,2	-44,1	72,1			
Hansen (30.03.2022)	36,9	34,8	38,9			
Kirsbom (01.05.2022)	30,6	26,8	34,3			
Cerqueira-Silva (14.04.2022)	29,2	25,0	33,1			
Tseng (01.10.2022)	23,2	-12,3	48,3			
Chemaitelly (02.06.2022)	21,9	7,7	33,9			
Tseng (01.10.2022)	20,7	-1,6	38,2			
Lin (26.09.2022)	11,7	9,9	13,5			
Tseng (01.10.2022)	10,8	0,8	19,8			
Cerqueira-Silva (14.04.2022)	5,4	3,2	7,5			
14-90 days post exposure						
Tseng (01.10.2022)	90,6	30,6	98,7			
Šmíd (25.02.2022)	86,0	85,0	88,0			
Tseng (01.10.2022)	85,8	82,7	88,3			
Šmíd (25.02.2022)	82,0	75,0	87,0			
Šmíd (25.02.2022)	77,0	76,0	78,0			
Tseng (01.10.2022)	76,3	73,9	78,6			
Tseng (01.10.2022)	72,6	-54,7	96,6			
Tseng (21.04.2022)	71,6	69,7	73,4			
Castillo (21.04.2022)	67,0	67,0	68,0			
Rennert (07.05.2022)	66,4	46,1	79,0			
Wang (25.03.2022)	65,0	63,0	66,0			
Kirsbom (01.05.2022)	63,8	63,0	64,5			
Lin (26.09.2022)	62,9	62,3	63,3			
Buchan (22.09.2022)	61,0	56,0	65,0			
Tseng (01.10.2022)	61,0	27,6	79,0			
Castillo (21.04.2022)	59,0	59,0	60,0			
Castillo (21.04.2022)	58,0	57,0	59,0			
Kirsbom (01.05.2022)	57,3	56,4	58,2			
Tseng (01.10.2022)	57,0	26,5	75,0			
Šmíd (25.02.2022)	56,0	55,0	56,0			
Chemaitelly (02.06.2022)	55,5	49,3	61,0			
Gram (01.09.2022)	55,1	54,6	55,5			
Chemaitelly (02.06.2022)	53,7	39,6	64,6			
Chemaitelly (02.06.2022)	53,7	41,5	63,3			
Cerqueira-Silva (14.04.2022)	53,4	51,4	55,3			
Kirsbom (01.05.2022)	53,0	42,6	61,6			
Gram (01.09.2022)	52,7	51,8	53,6			
Kirsbom (01.05.2022)	51,7	38,9	61,8			
Chemaitelly (02.06.2022)	51,5	45,0	57,2			
Gram (01.09.2022)	51,1	50,4	51,7			
Tsang (25.08.2022)	50,9	31,0	65,0			
Lin (26.09.2022)	50,8	50,1	51,5			
Hansen (30.03.2022)	47,9	47,4	48,3			
Hansen (30.03.2022)	47,7	47,0	48,3			
Tseng (21.04.2022)	47,4	40,5	53,5			
Kirsbom (01.05.2022)	46,4	45,0	47,8			
Hansen (30.03.2022)	45,5	44,9	46,2			
Rennert (07.05.2022)	45,4	30,0	57,4			
Šmíd (25.02.2022)	45,0	44,0	46,0			
Chemaitelly (02.06.2022)	43,6	36,5	49,9			
Hansen (30.03.2022)	43,5	42,2	44,7			
Cerqueira-Silva (14.04.2022)	42,3	41,6	42,9			
Tsang (25.08.2022)	41,4	23,2	55,2			
Tseng (01.10.2022)	41,2	28,3	51,8			
Link-Gelles (22.11.2022)	41,0	31,0	46,0			



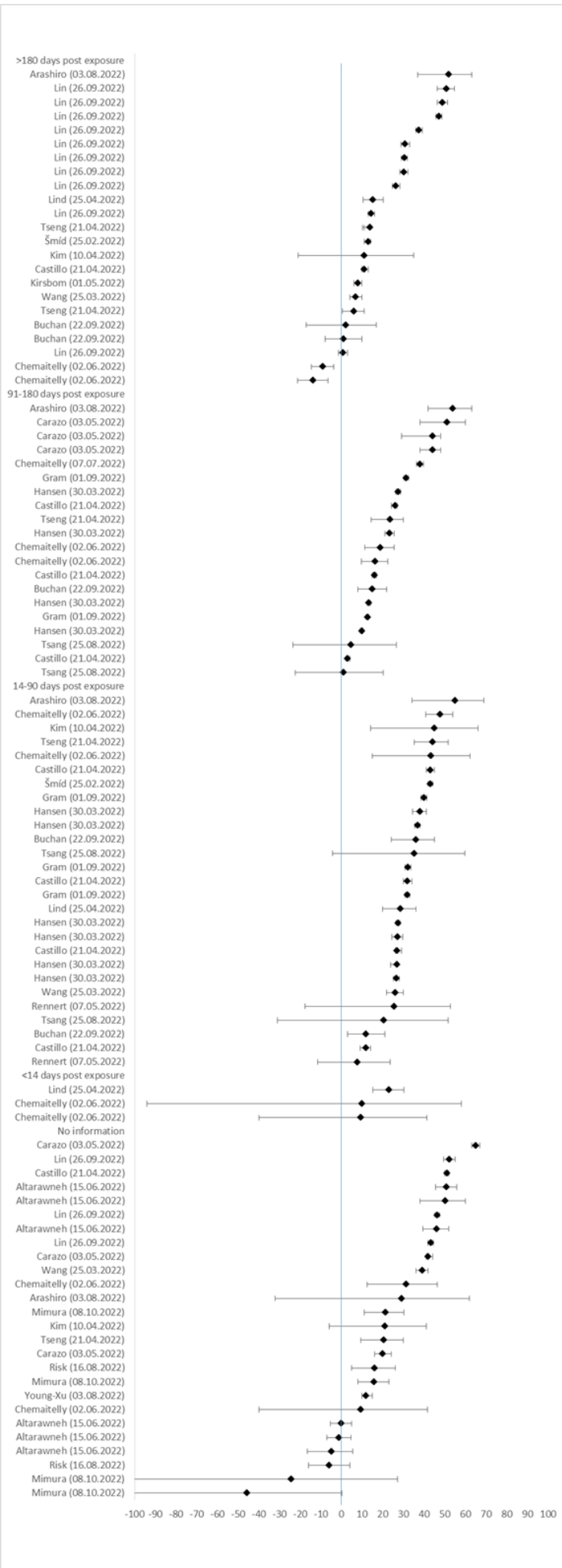
SF5: Infection: General population (adults 18+), Exposure 3, Reference less exposures (2 exposures) (n=14)

Author (date)	VE in %	lower CI 95%	upper CI 95%				
				Ioannou (16.06.2022)	46,5	44,1	48,7
				Ioannou (16.06.2022)	44,6	42,5	46,6
				Ioannou (16.06.2022)	44,3	42,2	46,3
>180 days post exposure				Ioannou (16.06.2022)	43,3	41,4	45,4
Tseng (01.10.2022)	50,0	28,4	65,1	Ioannou (16.06.2022)	42,3	40,6	43,9
Ng (26.08.2022)	14,6	11,0	18,0	Ioannou (16.06.2022)	39,6	36,9	42,1
Chemaitelly (15.11.2022)	14,4	7,3	20,9	Ioannou (16.06.2022)	39,0	36,4	41,6
Ng (26.08.2022)	9,7	2,7	16,3	Ioannou (16.06.2022)	36,4	33,3	39,4
Ng (26.08.2022)	3,7	0,0	7,2	Norrdahl (01.03.2022)	30,0	14,0	43,0
Ng (26.08.2022)	-2,8	-5,4	0,3	Norrdahl (01.03.2022)	27,0	9,0	41,0
Tseng (01.10.2022)	-13,1	-36,3	15,6	Butt (03.05.2022)	19,0	17,0	22,0
Tseng (01.10.2022)	-13,6	-23,4	-2,5	Norrdahl (01.03.2022)	14,0	-37,0	47,0
Tseng (01.10.2022)	-17,1	-31,4	0,2	Tseng (01.10.2022)	13,6	4,1	22,1
Chemaitelly (15.11.2022)	-20,3	-55,0	29,0	Norrdahl (01.03.2022)	9,0	-21,0	32,0
91-180 days post exposure				Norrdahl (01.03.2022)	7,0	-16,0	25,0
Tseng (01.10.2022)	62,0	55,5	67,5	Liu (21.06.2022)	6,9	4,8	9,0
Chemaitelly (15.11.2022)	41,2	40,1	42,3	Tseng (01.10.2022)	-1,1	-26,1	24,5
Chemaitelly (15.11.2022)	41,1	40,0	42,1	Tseng (01.10.2022)	-3,9	-19,7	13,0
Chemaitelly (15.11.2022)	38,5	37,3	39,8				
Tseng (01.10.2022)	29,1	-6,9	53,2				
Tseng (01.10.2022)	22,5	12,8	31,2				
Patalon (09.06.2022)	18,3	15,2	21,2				
Tseng (01.10.2022)	18,0	-6,7	37,3				
Patalon (09.06.2022)	16,0	12,3	19,5				
Butt (03.05.2022)	-9,0	-22,0	2,0				
Butt (03.05.2022)	-23,0	-65,0	9,0				
14-90 days post exposure							
Tseng (01.10.2022)	91,0	33,6	98,8				
Tseng (01.10.2022)	81,0	77,0	84,4				
Tseng (01.10.2022)	71,8	-55,7	96,5				
Andersson (29.11.2022)	69,8	69,2	70,5				
Tseng (01.10.2022)	68,8	65,5	71,9				
Andersson (29.11.2022)	65,1	62,8	67,4				
Tseng (01.10.2022)	63,6	32,3	80,4				
Patalon (09.06.2022)	59,4	54,9	63,5				
Chemaitelly (15.11.2022)	57,1	55,9	58,3				
Tseng (01.10.2022)	53,3	18,9	73,1				
Monge (02.06.2022)	51,3	50,2	52,4				
Monge (02.06.2022)	49,9	48,6	51,3				
Tseng (01.10.2022)	48,5	36,7	58,1				
Andersson (29.11.2022)	47,9	41,5	54,3				
Patalon (09.06.2022)	43,2	38,2	47,8				
Ng (26.08.2022)	41,3	39,4	43,1				
Butt (03.05.2022)	40,0	35,0	44,0				
Andersson (29.11.2022)	39,5	37,2	41,8				
Gonzales (27.09.2022)	36,0	33,0	39,0				
Ng (26.08.2022)	35,6	32,8	38,3				
Ng (26.08.2022)	34,9	33,0	36,8				
Ng (26.08.2022)	31,7	30,0	33,4				
Andersson (29.11.2022)	31	25,5	36,6				
Butt (03.05.2022)	30,0	23,0	36,0				
Patalon (09.06.2022)	29,1	26,1	32,0				
Ng (26.08.2022)	26,3	24,2	28,3				
Butt (03.05.2022)	24,0	17,0	31,0				
Ng (26.08.2022)	23,4	20,7	26,1				
Andersson (29.11.2022)	23	21,3	24,8				
Butt (03.05.2022)	23,0	18,0	27,0				
Ng (26.08.2022)	18,3	15,9	20,7				
Butt (03.05.2022)	12,0	1,0	21,0				
Ng (26.08.2022)	11,9	9,7	14,0				
Gonzales (27.09.2022)	8,0	-4,0	19,0				
Andersson (29.11.2022)	4,2	0,2	8,2				
Andersson (29.11.2022)	0,8	-1,0	2,6				
Butt (03.05.2022)	0,0	-7,0	6,0				
Tseng (01.10.2022)	-8,2	-57,8	50,0				
No information							
Norrdahl (01.03.2022)	96,0	25,0	64,0				
Liu (21.06.2022)	93,8	92,9	94,5				
Tseng (01.10.2022)	70,3	67,4	73,0				
Petrie (16.04.2022)	70,0	51,0	81,0				
Petrie (16.04.2022)	66,0	46,0	79,0				
Mimura (08.10.2022)	64,2	49,9	74,4				
Norrdahl (01.03.2022)	50,0	34,0	62,0				
Abu-Raddad (12.05.2022)	49,4	47,1	51,6				
Mimura (08.10.2022)	48,3	36,4	57,9				
Abu-Raddad (12.05.2022)	47,3	40,7	53,3				
Norrdahl (01.03.2022)	47,0	36,0	56,0				

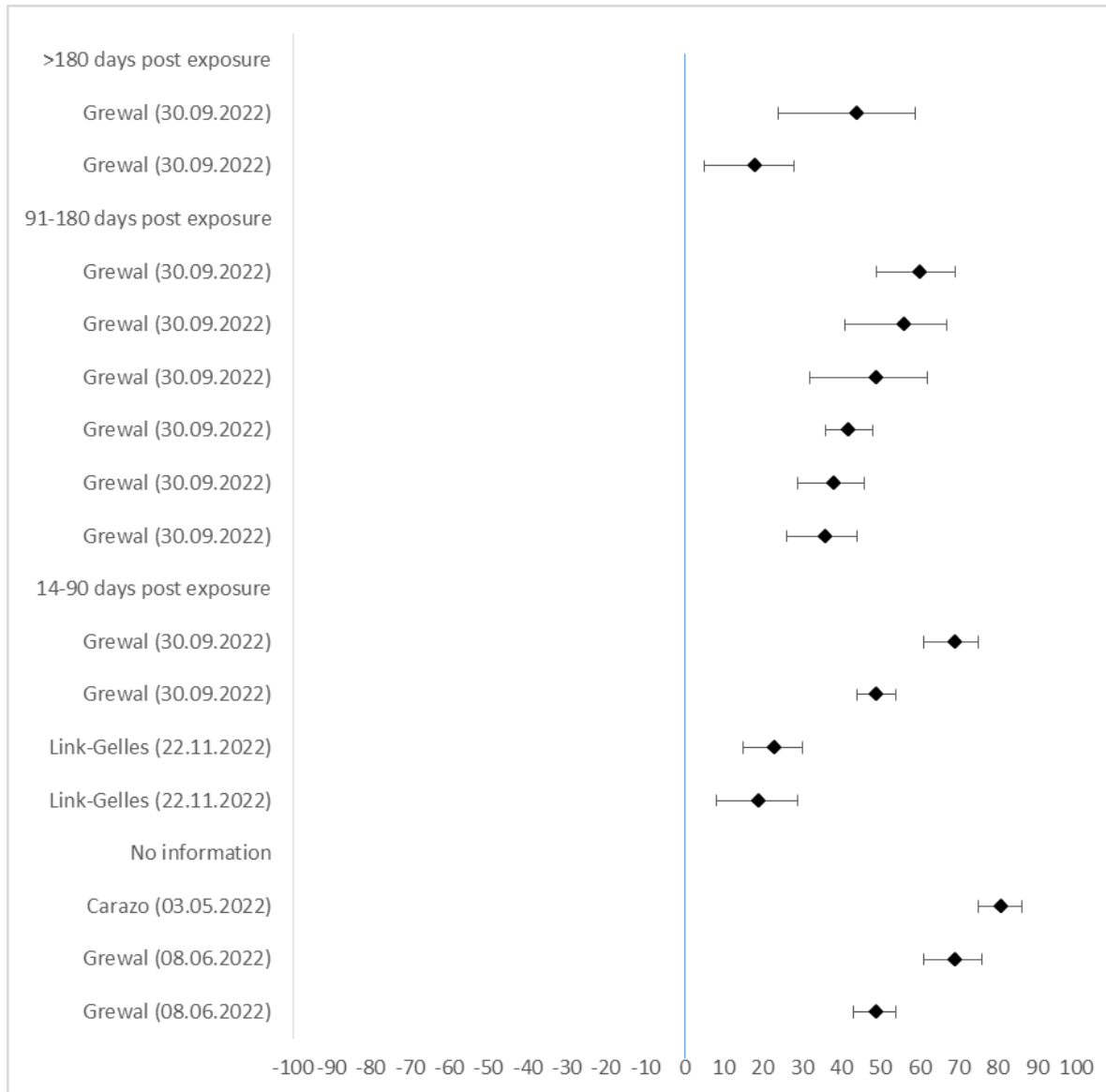


SF6: Infection: General population (adults 18+), Exposure 1-3, Reference unvaccinated (n=21)

Author (Date)	VE in %	upper CI 95%	lower CI 95%				
>180 days post exposure				Lind (25.04.2022)	23,1	15,2	30,2
Arashiro (03.08.2022)	52,0	37,0	63,0	Chemaitelly (02.06.2022)	9,8	-94,1	58,1
Lin (26.09.2022)	50,7	46,3	54,7	Chemaitelly (02.06.2022)	9,5	-39,8	41,3
Lin (26.09.2022)	49,0	46,4	51,4	No information			
Lin (26.09.2022)	47,2	45,8	48,5	Carazo (03.05.2022)	65,0	63,0	67,0
Lin (26.09.2022)	37,5	36,0	39,0	Lin (26.09.2022)	52,3	49,3	55,1
Lin (26.09.2022)	30,9	28,9	32,9	Castillo (21.04.2022)	51,0	50,0	52,0
Lin (26.09.2022)	30,6	29,1	32,0	Altarawneh (15.06.2022)	50,8	45,4	55,7
Lin (26.09.2022)	30,3	28,4	32,2	Altarawneh (15.06.2022)	50,2	38,1	59,9
Lin (26.09.2022)	26,4	24,6	28,2	Lin (26.09.2022)	46,4	45,3	47,5
Lind (25.04.2022)	15,3	10,4	20,2	Altarawneh (15.06.2022)	46,1	39,5	51,9
Lin (26.09.2022)	14,5	13,0	16,0	Lin (26.09.2022)	43,2	42,0	44,4
Tseng (21.04.2022)	13,8	11,0	10,2	Carazo (03.05.2022)	42,0	41,0	44,0
Šmíd (25.02.2022)	13,0	11,0	14,0	Wang (25.03.2022)	39,0	36,0	42,0
Kim (10.04.2022)	11,0	-21,0	35,0	Chemaitelly (02.06.2022)	31,4	12,5	46,3
Castillo (21.04.2022)	11,0	10,0	13,0	Arashiro (03.08.2022)	29,0	-32,0	62,0
Kirsbom (01.05.2022)	8,0	6,0	9,9	Mimura (08.10.2022)	21,2	11,0	30,3
Wang (25.03.2022)	7,0	4,0	10,0	Kim (10.04.2022)	21,0	-6,0	41,0
Tseng (21.04.2022)	5,9	0,4	11,0	Tseng (21.04.2022)	20,4	9,5	30,0
Buchan (22.09.2022)	2,0	-17,0	17,0	Carazo (03.05.2022)	20,0	16,0	24,0
Buchan (22.09.2022)	1,0	-8,0	10,0	Risk (16.08.2022)	16,0	5,0	26,0
Lin (26.09.2022)	0,8	-1,5	3,0	Mimura (08.10.2022)	15,8	7,9	23,1
Chemaitelly (02.06.2022)	-9,0	-14,5	-3,7	Young-Xu (03.08.2022)	12,0	10,0	15,0
Chemaitelly (02.06.2022)	-13,7	-21,3	-6,6	Chemaitelly (02.06.2022)	9,5	-39,9	41,5
91-180 days post exposure				Altarawneh (15.06.2022)	-0,2	-5,5	4,9
Arashiro (03.08.2022)	54,0	42,0	63,0	Altarawneh (15.06.2022)	-1,1	-7,1	4,6
Carazo (03.05.2022)	51,0	38,0	60,0	Altarawneh (15.06.2022)	-4,9	-16,4	5,4
Carazo (03.05.2022)	44,0	29,0	48,0	Risk (16.08.2022)	-6,0	-16,0	4,0
Carazo (03.05.2022)	44,0	38,0	48,0	Mimura (08.10.2022)	-24,4	-112,3	27,1
Chemaitelly (07.07.2022)	38,1	36,3	39,8	Mimura (08.10.2022)	-45,6	-111,4	0,3
Gram (01.09.2022)	31,3	30,3	32,4				
Hansen (30.03.2022)	27,4	26,2	28,5				
Castillo (21.04.2022)	26,0	24,0	27,0				
Tseng (21.04.2022)	23,5	14,4	30,0				
Hansen (30.03.2022)	23,3	21,1	25,5				
Chemaitelly (02.06.2022)	18,7	11,3	25,5				
Chemaitelly (02.06.2022)	16,3	9,7	22,5				
Castillo (21.04.2022)	16,0	15,0	17,0				
Buchan (22.09.2022)	15,0	8,0	22,0				
Hansen (30.03.2022)	13,2	12,3	14,2				
Gram (01.09.2022)	12,6	12,0	13,3				
Hansen (30.03.2022)	9,8	9,2	10,4				
Tsang (25.08.2022)	4,7	-23,5	26,6				
Castillo (21.04.2022)	3,0	2,0	4,0				
Tsang (25.08.2022)	1,1	-22,4	20,1				
14-90 days post exposure							
Arashiro (03.08.2022)	55,0	34,0	69,0				
Chemaitelly (02.06.2022)	47,8	40,8	53,9				
Kim (10.04.2022)	45,0	14,0	66,0				
Tseng (21.04.2022)	44,0	35,1	51,6				
Chemaitelly (02.06.2022)	43,2	15,0	62,1				
Castillo (21.04.2022)	43,0	41,0	45,0				
Šmíd (25.02.2022)	43,0	42,0	44,0				
Gram (01.09.2022)	40,0	38,6	41,3				
Hansen (30.03.2022)	37,9	34,4	41,2				
Hansen (30.03.2022)	37,0	35,6	38,0				
Buchan (22.09.2022)	36,0	24,0	45,0				
Tsang (25.08.2022)	35,3	-4,2	59,8				
Gram (01.09.2022)	32,3	30,9	33,7				
Castillo (21.04.2022)	32,0	30,0	34,0				
Gram (01.09.2022)	31,9	30,7	33,0				
Lind (25.04.2022)	28,5	20,0	36,2				
Hansen (30.03.2022)	27,4	26,3	28,4				
Hansen (30.03.2022)	27,1	24,5	29,6				
Castillo (21.04.2022)	27,0	26,0	29,0				
Hansen (30.03.2022)	26,8	23,8	26,9				
Hansen (30.03.2022)	26,6	25,3	27,9				
Wang (25.03.2022)	26,0	22,0	30,0				
Rennert (07.05.2022)	25,6	-17,6	52,9				
Tsang (25.08.2022)	20,4	-30,9	51,6				
Buchan (22.09.2022)	12,0	3,0	21,0				
Castillo (21.04.2022)	12,0	9,0	14,0				
Rennert (07.05.2022)	7,7	-11,5	23,5				
<14 days post exposure							

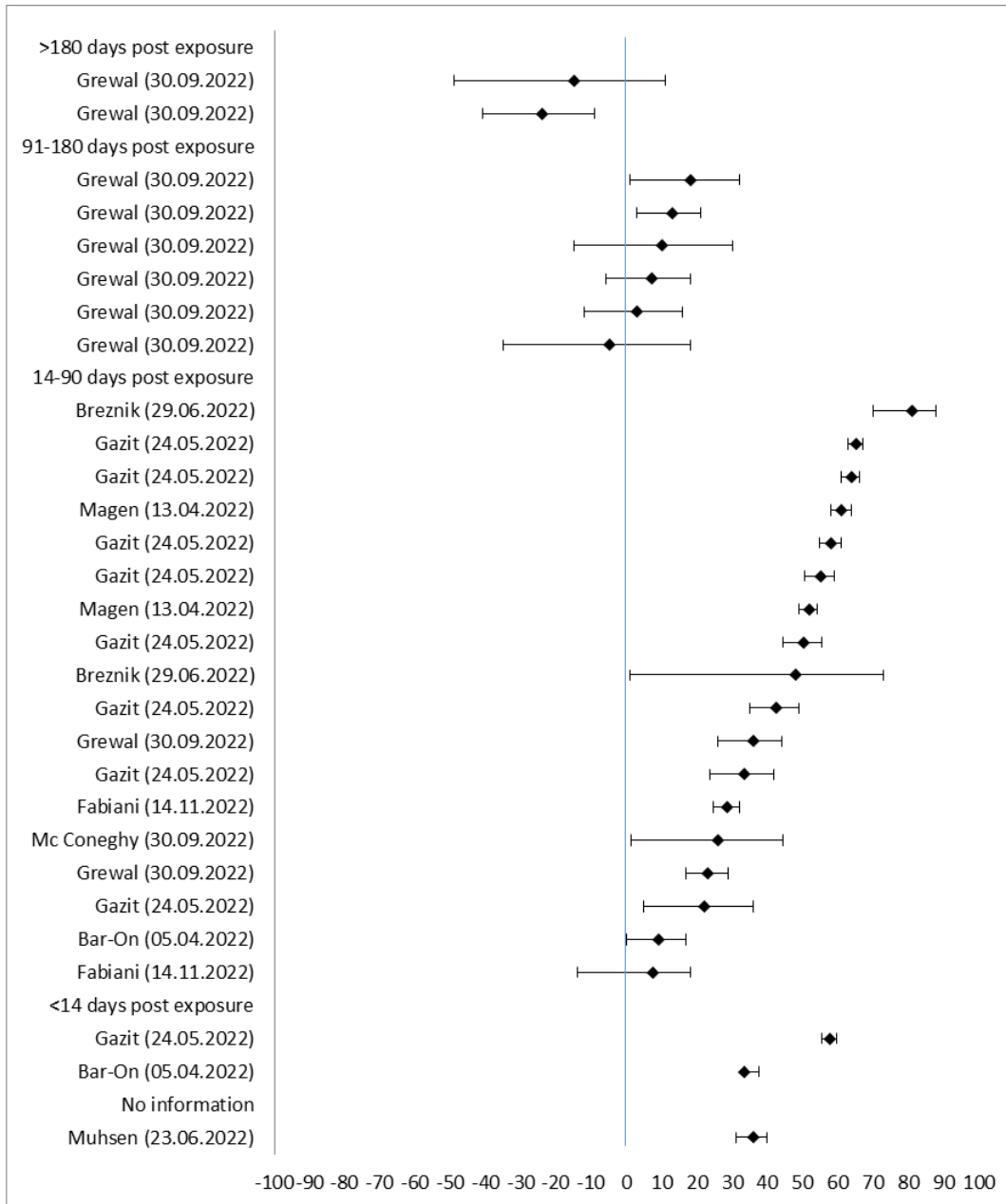


SF7: Infection: Older adults (60+ years), Exposure 3+, Reference unvaccinated (n=4)



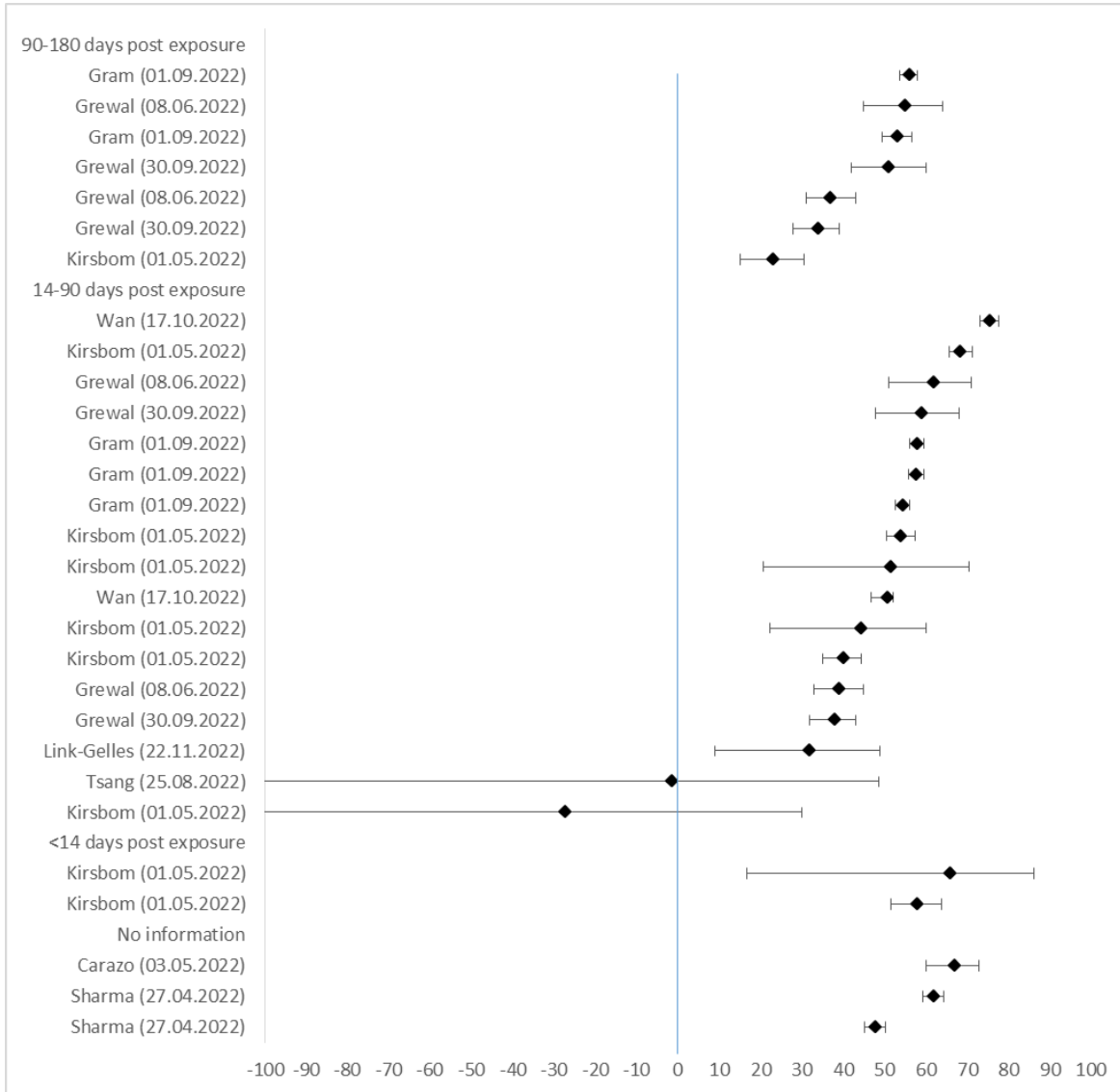
Author (Date)	VE in %	upper CI 95%	lower CI 95%
>180 days post exposure			
Grewal (30.09.2022)	44,0	24,0	59,0
Grewal (30.09.2022)	18,0	5,0	28,0
91-180 days post exposure			
Grewal (30.09.2022)	60,0	49,0	69,0
Grewal (30.09.2022)	56,0	41,0	67,0
Grewal (30.09.2022)	49,0	32,0	62,0
Grewal (30.09.2022)	42,0	36,0	48,0
Grewal (30.09.2022)	38,0	29,0	46,0
Grewal (30.09.2022)	36,0	26,0	44,0
14-90 days post exposure			
Grewal (30.09.2022)	69,0	61,0	75,0
Grewal (30.09.2022)	49,0	44,0	54,0
Link-Gelles (22.11.2022)	23,0	15,0	30,0
Link-Gelles (22.11.2022)	19,0	8,0	29,0
No information			
Carazo (03.05.2022)	81,0	75,0	86,0
Grewal (08.06.2022)	69,0	61,0	76,0
Grewal (08.06.2022)	49,0	43,0	54,0

SF8: Infection: Older adults (60+ years), Exposure 3+, Reference less exposures (3 exposures) (n=8)



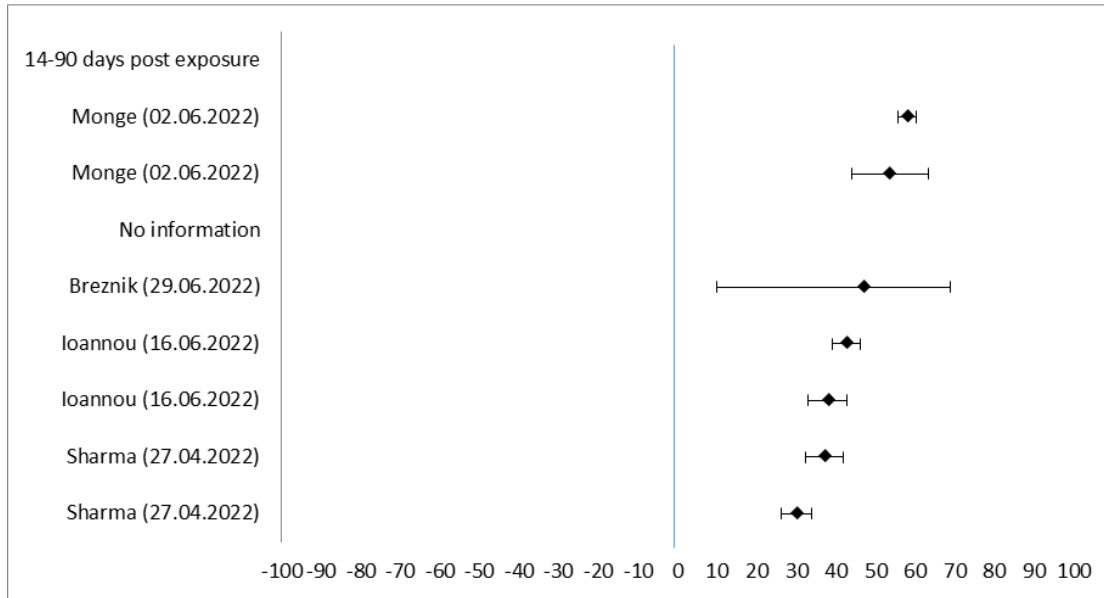
Author (date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Grewal (30.09.2022)	-15,0	-49,0	11,0
Grewal (30.09.2022)	-24,0	-41,0	-9,0
91-180 days post exposure			
Grewal (30.09.2022)	18,0	1,0	32,0
Grewal (30.09.2022)	13,0	3,0	21,0
Grewal (30.09.2022)	10,0	-15,0	30,0
Grewal (30.09.2022)	7,0	-6,0	18,0
Grewal (30.09.2022)	3,0	-12,0	16,0
Grewal (30.09.2022)	-5,0	-35,0	18,0
14-90 days post exposure			
Breznik (29.06.2022)	81,0	70,0	88,0
Gazit (24.05.2022)	65,1	63,0	67,1
Gazit (24.05.2022)	64,0	61,1	66,3
Magen (13.04.2022)	61,0	58,0	64,0
Gazit (24.05.2022)	58,1	54,8	61,1
Gazit (24.05.2022)	55,0	50,6	58,9
Magen (13.04.2022)	52,0	49,0	54,0
Gazit (24.05.2022)	50,2	44,5	55,3
Breznik (29.06.2022)	48,0	1,0	73,0
Gazit (24.05.2022)	42,5	35,1	49,1
Grewal (30.09.2022)	36,0	26,0	44,0
Gazit (24.05.2022)	33,4	23,8	41,8
Fabiani (14.11.2022)	28,5	24,7	32,1
Mc Coneghy (30.09.2022)	25,8	1,2	44,3
Grewal (30.09.2022)	23,0	17,0	29,0
Gazit (24.05.2022)	22,0	4,9	36,1
Bar-On (05.04.2022)	9,2	0,0	16,7
Fabiani (14.11.2022)	7,6	-14,1	18,3
<14 days post exposure			
Gazit (24.05.2022)	57,7	55,6	59,7
Bar-On (05.04.2022)	33,3	33,3	37,5
No information			
Muhsen (23.06.2022)	36,0	31,0	40,0

SF9: Infection: Older adults (60+years), Exposure 3, Reference unvaccinated (n=9)



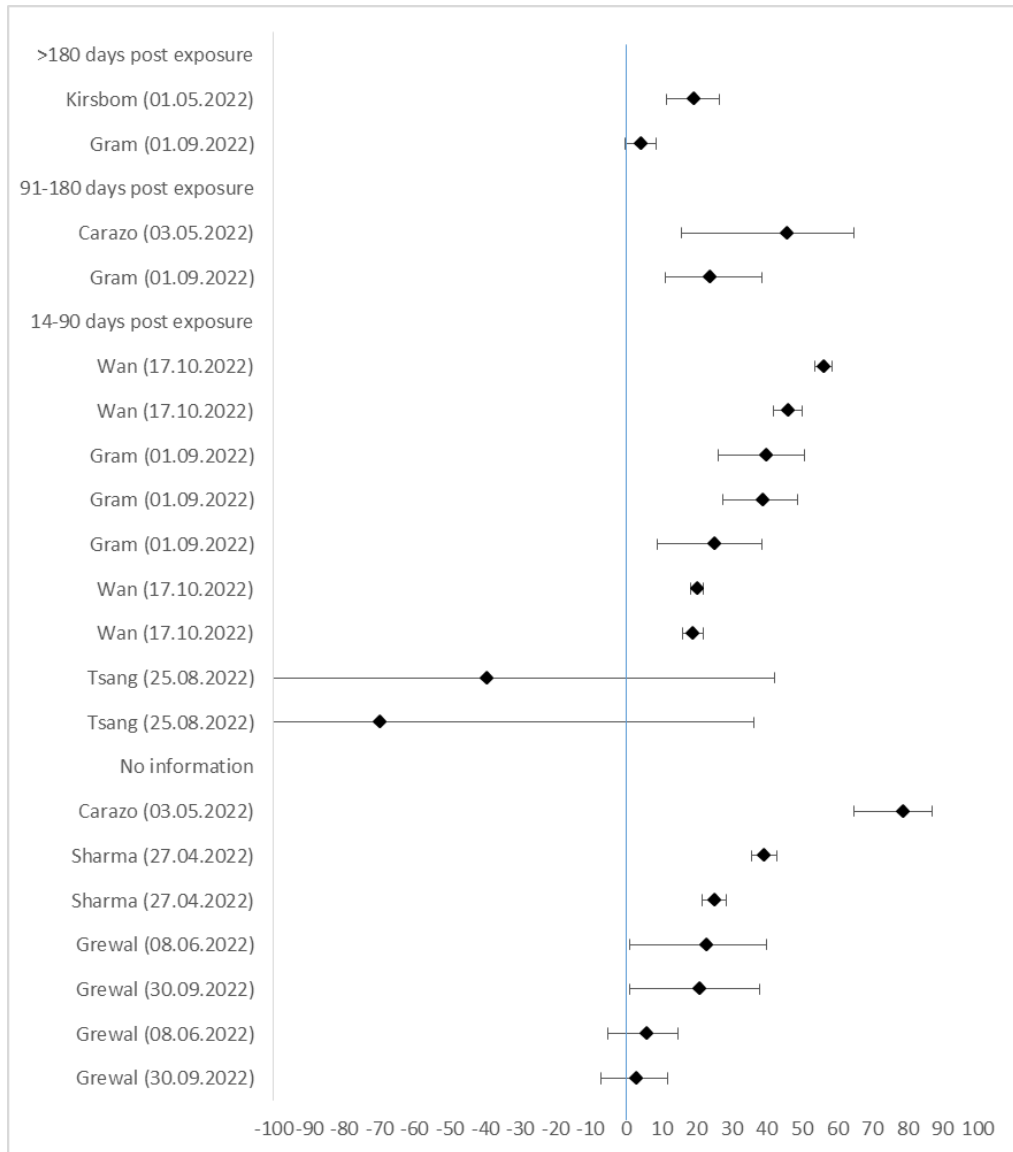
Author (Date)	VE in %	lower CI 95%	upper CI 95%
91-180 days post exposure			
Gram (01.09.2022)	56,0	53,7	58,1
Grewal (08.06.2022)	55,0	45,0	64,0
Gram (01.09.2022)	53,2	49,6	56,6
Grewal (30.09.2022)	51,0	42,0	60,0
Grewal (08.06.2022)	37,0	31,0	43,0
Grewal (30.09.2022)	34,0	28,0	39,0
Kirsbom (01.05.2022)	23,1	15,1	30,5
14-90 days post exposure			
Wan (17.10.2022)	75,6	73,2	77,8
Kirsbom (01.05.2022)	68,5	65,7	71,2
Grewal (08.06.2022)	62,0	51,0	71,0
Grewal (30.09.2022)	59,0	48,0	68,0
Gram (01.09.2022)	57,9	56,1	59,6
Gram (01.09.2022)	57,7	55,9	59,5
Gram (01.09.2022)	54,4	52,7	56,0
Kirsbom (01.05.2022)	54,1	50,5	57,5
Kirsbom (01.05.2022)	51,6	20,8	70,4
Wan (17.10.2022)	50,9	46,9	52,1
Kirsbom (01.05.2022)	44,5	22,4	60,2
Kirsbom (01.05.2022)	40,1	35,2	44,5
Grewal (08.06.2022)	39,0	33,0	45,0
Grewal (30.09.2022)	38,0	32,0	43,0
Link-Gelles (22.11.2022)	32,0	9,00	49,00
Tsang (25.08.2022)	-1,5	-101,0	48,7
Kirsbom (01.05.2022)	-27,2	-131,6	30,1
<14 days post exposure			
Kirsbom (01.05.2022)	66,1	16,6	86,3
Kirsbom (01.05.2022)	58,1	51,6	63,8
No information			
Carazo (03.05.2022)	67,0	60,0	73,0
Sharma (27.04.2022)	61,9	59,4	64,4
Sharma (27.04.2022)	47,8	45,2	50,3

SF10: Infection: Older adults (60+ years), Exposure 3, Reference less exposures (2 exposures) (n=4)



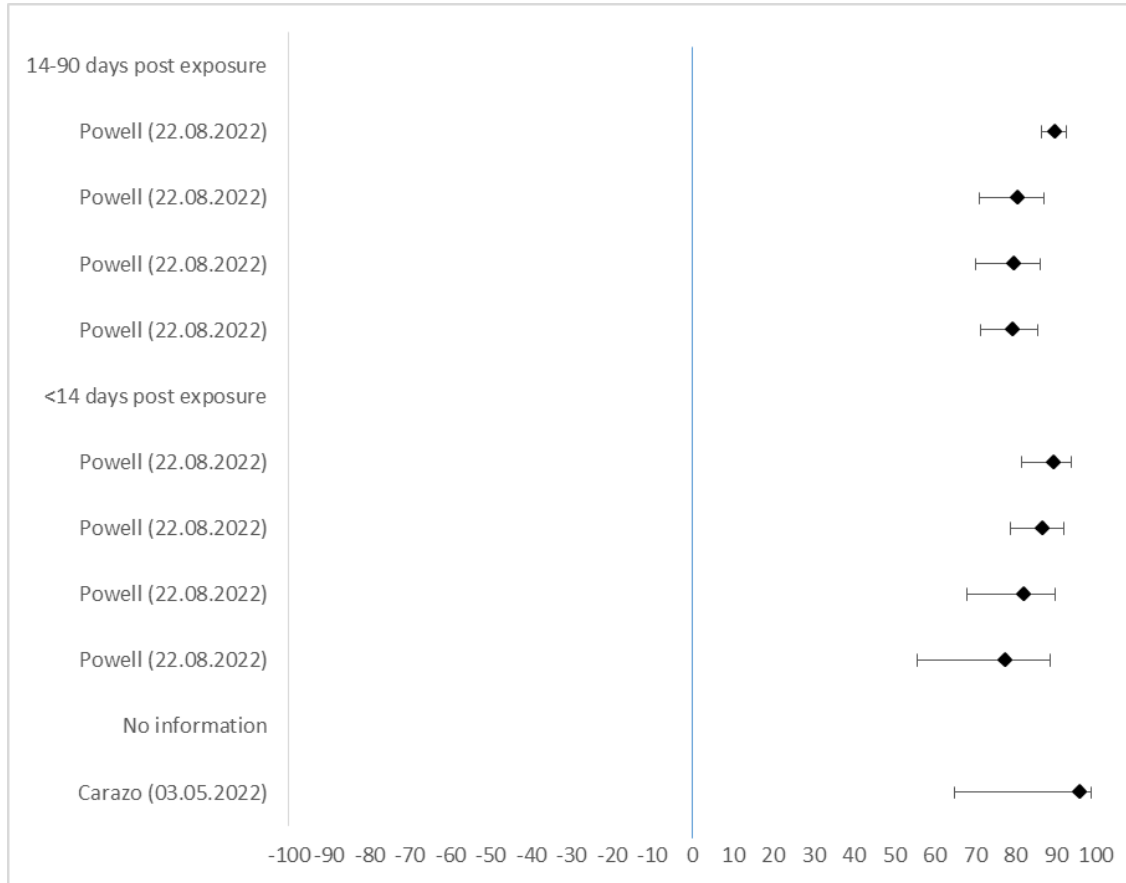
Author (date)	VE in %	lower CI 95%	upper CI 95%
14-90 days post exposure			
Monge (02.06.2022)	58,0	55,8	60,4
Monge (02.06.2022)	53,5	43,9	63,3
No information			
Breznik (29.06.2022)	47,0	10,0	69,0
Ioannou (16.06.2022)	42,8	39,1	46,2
Ioannou (16.06.2022)	38,1	33,0	42,8
Sharma (27.04.2022)	37,1	32,2	41,7
Sharma (27.04.2022)	30,1	26,2	33,7

SF11: Infection: Older adults (60+ years), Exposure 1-3, Reference unvaccinated (n=8)



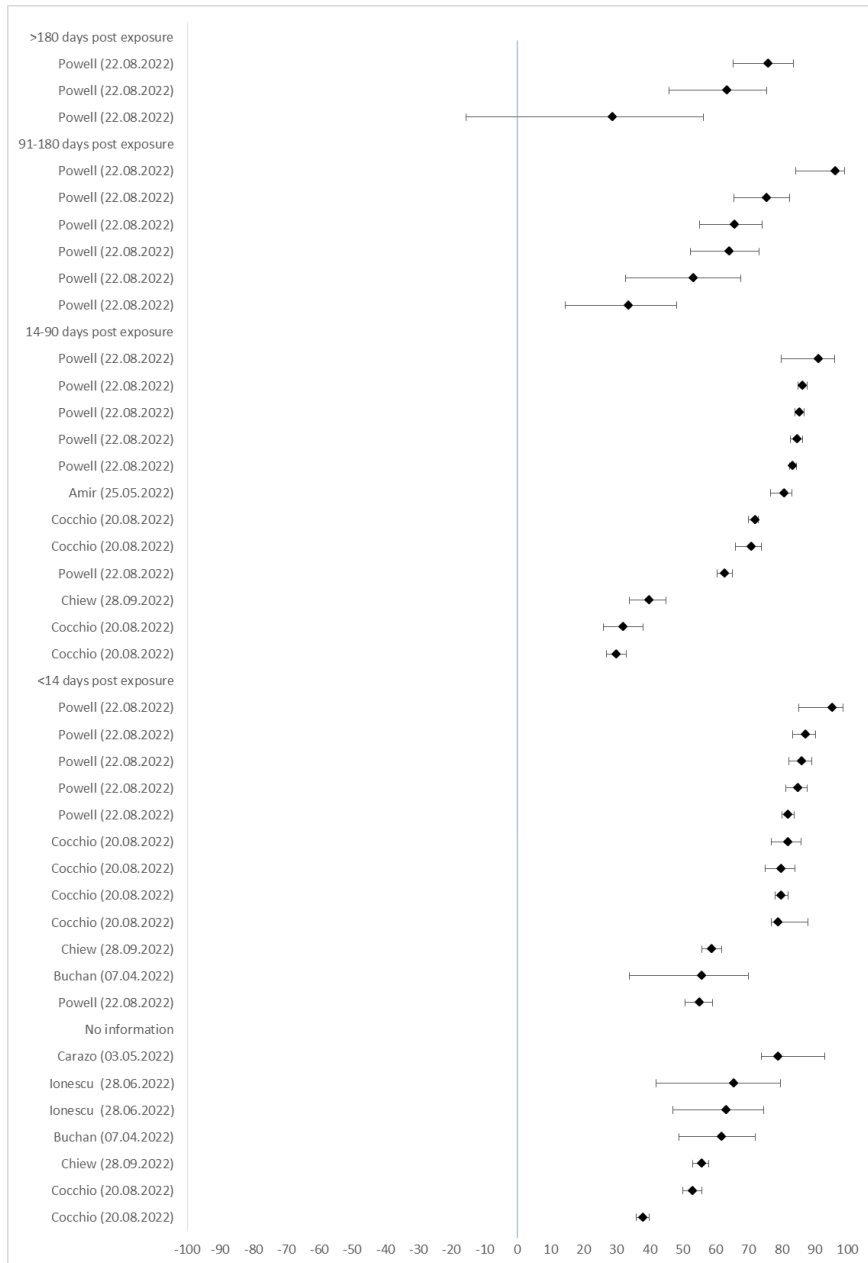
Author (Date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Kirsbom (01.05.2022)	19,5	11,7	26,6
Gram (01.09.2022)	4,4	-0,1	8,7
91-180 days post exposure			
Carazo (03.05.2022)	46,0	16,0	65,0
Gram (01.09.2022)	24,0	11,4	38,8
14-90 days post exposure			
Wan (17.10.2022)	56,2	53,8	58,5
Wan (17.10.2022)	46,2	42,1	50
Gram (01.09.2022)	39,9	26,3	50,9
Gram (01.09.2022)	39,0	27,6	48,7
Gram (01.09.2022)	25,2	9,0	38,6
Wan (17.10.2022)	20,3	18,4	22,1
Wan (17.10.2022)	19,2	16,2	22
Tsang (25.08.2022)	-39,3	-236,4	42,4
Tsang (25.08.2022)	-69,7	-353,1	36,5
No information			
Carazo (03.05.2022)	79,0	65,0	87,0
Sharma (27.04.2022)	39,5	35,8	43,0
Sharma (27.04.2022)	25,3	21,8	28,7
Grewal (08.06.2022)	23,0	1,0	40,0
Grewal (30.09.2022)	21,0	1,0	38,0
Grewal (08.06.2022)	6,0	-5,0	15,0
Grewal (30.09.2022)	3,0	-7,0	12,0

SF12: Infection: Children and adolescents (5-17 years), Exposure 3+, Reference unvaccinated (n=2)



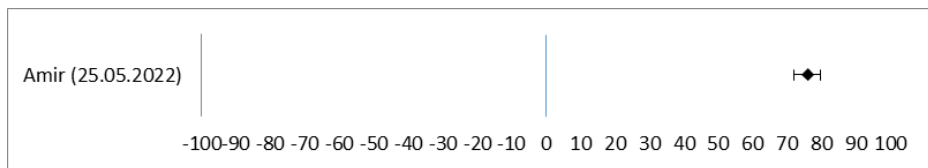
Author (Date)	VE in %	lower CI 95%	upper CI 95%
14-90 days post exposure			
Powell (22.08.2022)	90,1	86,6	92,7
Powell (22.08.2022)	80,7	71,1	87,1
Powell (22.08.2022)	79,8	70,4	86,3
Powell (22.08.2022)	79,6	71,4	85,5
<14 days post exposure			
Powell (22.08.2022)	89,5	81,7	94,0
Powell (22.08.2022)	87,0	78,8	92,0
Powell (22.08.2022)	82,2	68,1	90,1
Powell (22.08.2022)	77,7	55,7	88,8
No information			
Carazo (03.05.2022)	96,0	65,0	99,0

SF13: Infection: Children and adolescents (5-17 years), Exposure 3, Reference unvaccinated (n=7)



Author (Date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Powell (22.08.2022)	76,1	65,3	83,6
Powell (22.08.2022)	63,6	46,0	75,5
Powell (22.08.2022)	28,9	-15,5	56,3
91-180 days post exposure			
Powell (22.08.2022)	96,4	84,4	99,1
Powell (22.08.2022)	75,5	65,6	82,5
Powell (22.08.2022)	65,9	55,2	74,1
Powell (22.08.2022)	64,3	52,4	73,3
Powell (22.08.2022)	53,4	32,7	67,7
Powell (22.08.2022)	33,6	14,6	48,3
14-90 days post exposure			
Powell (22.08.2022)	91,2	80,0	96,1
Powell (22.08.2022)	86,5	85,1	87,8
Powell (22.08.2022)	85,5	84,0	86,9
Powell (22.08.2022)	84,7	82,6	86,5
Powell (22.08.2022)	83,5	82,5	84,5
Amir (25.05.2022)	80,8	76,7	83,1
Cocchio (20.08.2022)	72,0	70,0	73,0
Cocchio (20.08.2022)	71,0	66,0	74,0
Powell (22.08.2022)	62,9	60,5	65,1
Chiew (28.09.2022)	40,0	34,0	45,0
Cocchio (20.08.2022)	32,0	26,0	38,0
Cocchio (20.08.2022)	30,0	27,0	33,0
<14 days post exposure			
Powell (22.08.2022)	95,5	85,3	98,6
Powell (22.08.2022)	87,4	83,5	90,4
Powell (22.08.2022)	86,1	82,3	89,1
Powell (22.08.2022)	84,9	81,3	87,8
Powell (22.08.2022)	82,1	80,1	83,9
Cocchio (20.08.2022)	82,0	77,0	86,0
Cocchio (20.08.2022)	80,0	75,0	84,0
Cocchio (20.08.2022)	80,0	78,0	82,0
Cocchio (20.08.2022)	79,0	77,0	88,0
Chiew (28.09.2022)	59,0	56,0	62,0
Buchan (07.04.2022)	56,0	34,0	70,0
Powell (22.08.2022)	55,1	50,7	59,1
No information			
Carazo (03.05.2022)	79,0	74,0	93,0
Ionescu (28.06.2022)	65,7	41,9	79,8
Ionescu (28.06.2022)	63,3	47,2	74,6
Buchan (07.04.2022)	62,0	49,0	72,0
Chiew (28.09.2022)	56,0	53,0	58,0
Cocchio (20.08.2022)	53,0	50,0	56,0
Cocchio (20.08.2022)	38,0	36,0	40,0

SF14: Infection: Children and adolescents (5-17 years), Exposure 3, Reference less exposures (2 exposures) (n=1)



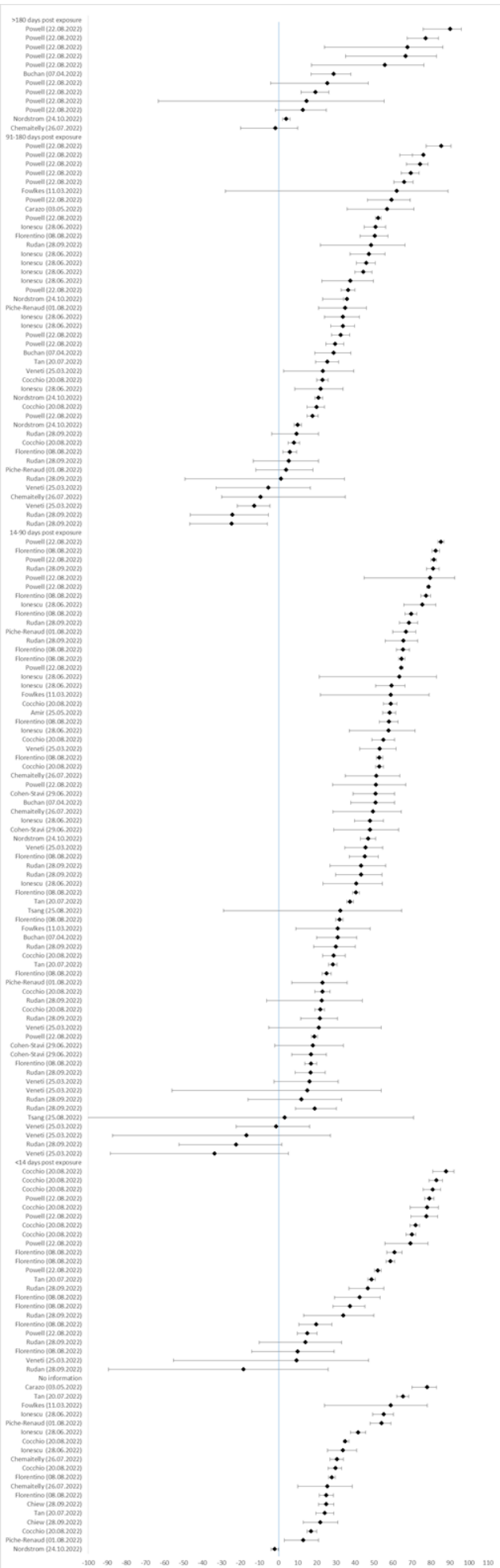
Author (date)	VE in %	lower CI 95%	upper CI 95%
14-90 days post exposure			
Amir (25.05.2022)	76,2	72,2	79,6

SF15: Infection: Children and adolescents (5-17 years), Exposure 1-3, Reference unvaccinated (n=17)

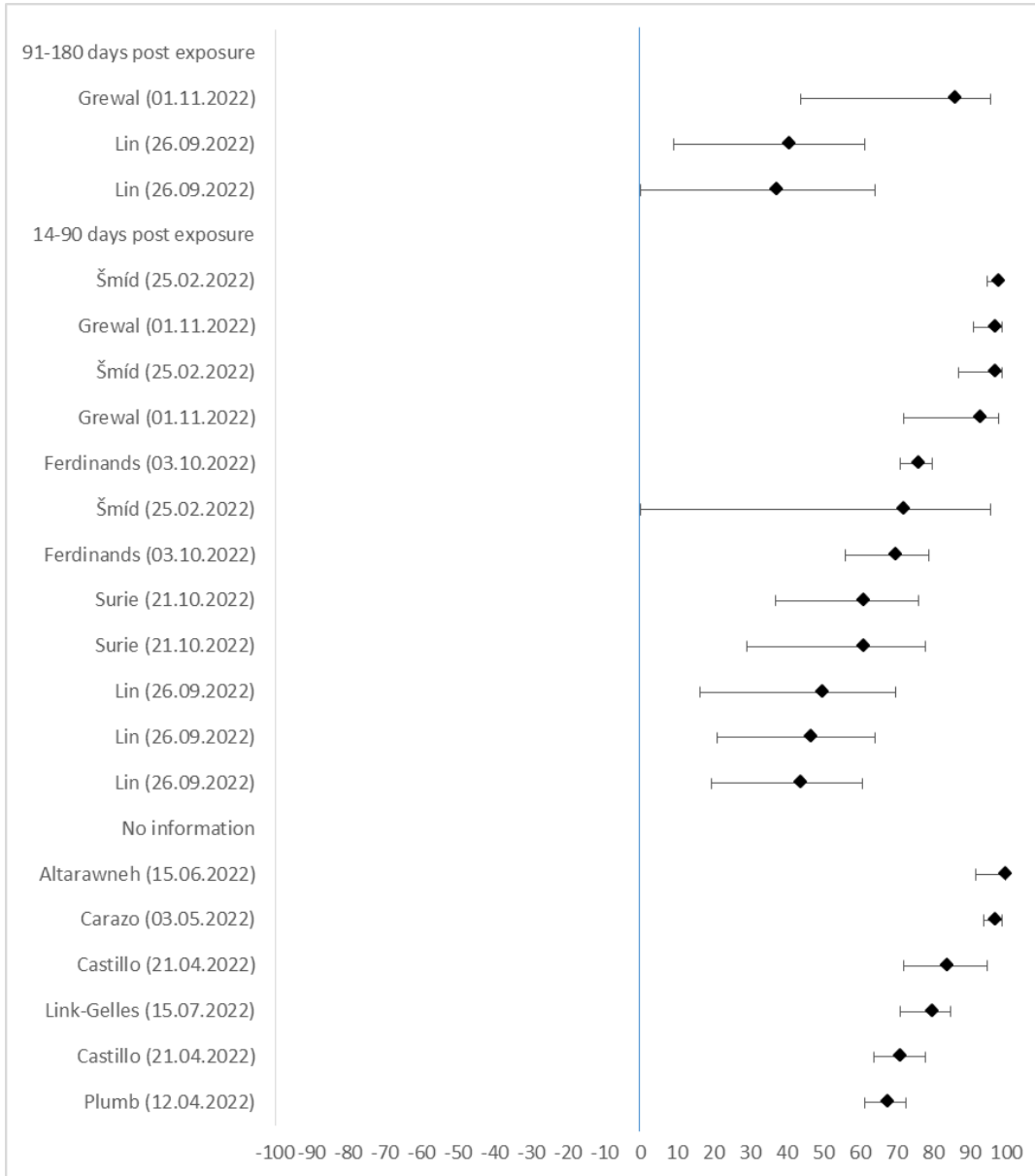
Author (Date)	VE in %	lower CI 95%	upper CI 95%				
>180 days post exposure				Fowlkes (11.03.2022)	59,0	22,0	79,0
				Cocchio (20.08.2022)	59,0	55,0	62,0
				Amir (25.05.2022)	58,3	54,6	61,5
Powell (22.08.2022)	90,2	75,9	96,0	Florentino (08.08.2022)	58,0	52,9	62,6
Powell (22.08.2022)	77,2	67,5	84,0	Ionescu (28.06.2022)	57,7	37,2	71,6
Powell (22.08.2022)	67,8	24,1	86,3	Cocchio (20.08.2022)	55,0	49,0	61,0
Powell (22.08.2022)	66,7	35,2	82,9	Veneti (25.03.2022)	53,1	42,6	61,7
Powell (22.08.2022)	55,8	17,2	76,4	Florentino (08.08.2022)	53,0	51,3	54,7
Buchan (07.04.2022)	29,0	17,0	38,0	Cocchio (20.08.2022)	53,0	51,0	55,0
Powell (22.08.2022)	25,7	-4,2	47,0	Chemaitelly (26.07.2022)	51,3	34,9	63,6
Powell (22.08.2022)	19,4	11,7	26,4	Powell (22.08.2022)	51,2	28,4	66,8
Powell (22.08.2022)	14,7	-63,3	55,4	Cohen-Stavi (29.06.2022)	51,0	39,0	61,0
Powell (22.08.2022)	12,8	-1,6	25,1	Buchan (07.04.2022)	51,0	38,0	61,0
Nordstrom (24.10.2022)	4,0	2,0	6,0	Chemaitelly (26.07.2022)	49,6	28,5	64,5
Chemaitelly (26.07.2022)	-1,7	-20,0	10,0	Ionescu (28.06.2022)	48,1	39,9	55,1
91-180 days post exposure				Cohen-Stavi (29.06.2022)	48,0	29,0	63,0
Powell (22.08.2022)	85,5	77,5	90,6	Nordstrom (24.10.2022)	47,0	43,0	51,0
Powell (22.08.2022)	76,2	63,7	70,3	Veneti (25.03.2022)	45,7	34,8	54,7
Powell (22.08.2022)	74,4	67,2	78,4	Florentino (08.08.2022)	45,3	37,2	52,4
Powell (22.08.2022)	69,5	64,5	73,8	Rudan (28.09.2022)	43,4	26,9	56,2
Powell (22.08.2022)	65,9	60,5	70,6	Rudan (28.09.2022)	43,3	30,0	54,2
Fowlkes (11.03.2022)	62,0	-28,0	89,0	Ionescu (28.06.2022)	40,8	23,2	54,4
Powell (22.08.2022)	59,3	46,7	69,0	Florentino (08.08.2022)	40,6	38,8	42,4
Carazo (03.05.2022)	57,0	36,0	71,0	Tan (20.07.2022)	37,6	35,7	39,3
Powell (22.08.2022)	52,4	50,9	53,8	Tsang (25.08.2022)	32,4	-29,0	64,6
Ionescu (28.06.2022)	50,9	44,9	56,3	Florentino (08.08.2022)	32,0	30,0	33,9
Florentino (08.08.2022)	50,6	42,7	57,4	Fowlkes (11.03.2022)	31,0	9,0	48,0
Rudan (28.09.2022)	48,7	22,0	66,3	Buchan (07.04.2022)	31,0	20,0	41,0
Ionescu (28.06.2022)	47,5	37,6	55,8	Rudan (28.09.2022)	30,2	18,4	40,3
Ionescu (28.06.2022)	46,0	40,9	50,7	Cocchio (20.08.2022)	29,0	23,0	35,0
Ionescu (28.06.2022)	44,6	40,0	49,0	Tan (20.07.2022)	28,5	26,3	30,7
Ionescu (28.06.2022)	37,7	22,7	49,7	Florentino (08.08.2022)	25,3	22,9	27,6
Powell (22.08.2022)	36,6	32,9	40,1	Piche-Renaud (01.08.2022)	23,0	7,0	36,0
Nordstrom (24.10.2022)	36,0	34,0	23,0	Cocchio (20.08.2022)	23,0	19,0	27,0
Piche-Renaud (01.08.2022)	35,0	21,0	46,0	Rudan (28.09.2022)	22,8	-6,4	44,0
Ionescu (28.06.2022)	33,9	24,1	42,4	Cocchio (20.08.2022)	22,0	19,0	24,0
Ionescu (28.06.2022)	33,9	27,4	39,9	Rudan (28.09.2022)	21,8	11,5	30,8
Powell (22.08.2022)	32,7	27,7	37,4	Veneti (25.03.2022)	21,2	-5,1	53,8
Powell (22.08.2022)	29,8	24,9	34,2	Powell (22.08.2022)	18,8	17,2	20,3
Buchan (07.04.2022)	29,0	19,0	38,0	Cohen-Stavi (29.06.2022)	18,0	-2,0	34,0
Tan (20.07.2022)	25,6	19,3	31,5	Cohen-Stavi (29.06.2022)	17,0	7,0	25,0
Veneti (25.03.2022)	23,3	2,7	39,5	Florentino (08.08.2022)	17,0	13,8	20,0
Cocchio (20.08.2022)	23,0	20,0	26,0	Rudan (28.09.2022)	16,9	8,7	24,4
Ionescu (28.06.2022)	22,2	8,4	33,9	Veneti (25.03.2022)	16,2	-2,4	31,3
Nordstrom (24.10.2022)	21,0	19,0	23,0	Veneti (25.03.2022)	15,1	-56,0	53,8
Cocchio (20.08.2022)	20,0	15,0	24,0	Rudan (28.09.2022)	11,9	-16,1	33,1
Powell (22.08.2022)	17,9	14,9	20,7	Rudan (28.09.2022)	19,1	8,9	30,3
Nordstrom (24.10.2022)	10,0	8,0	12,0	Tsang (25.08.2022)	3,2	-220,7	70,8
Rudan (28.09.2022)	9,5	-3,6	20,9	Veneti (25.03.2022)	-1,3	-22,4	16,2
Cocchio (20.08.2022)	8,0	5,0	11,0	Veneti (25.03.2022)	-16,8	-87,3	27,1
Florentino (08.08.2022)	5,9	2,2	9,4	Rudan (28.09.2022)	-22,4	-52,3	1,6
Rudan (28.09.2022)	5,4	-13,4	21,0	Veneti (25.03.2022)	-33,7	-88,3	5,1
Piche-Renaud (01.08.2022)	4,0	-12,0	18,0	<14 days post exposure			
Rudan (28.09.2022)	1,2	-49,3	34,6	Cocchio (20.08.2022)	88,0	81,0	92,0
Veneti (25.03.2022)	-5,3	-32,9	16,6	Cocchio (20.08.2022)	83,0	79,0	86,0
Chemaitelly (26.07.2022)	-9,5	-30,0	35,0	Cocchio (20.08.2022)	81,0	76,0	85,0
Veneti (25.03.2022)	-12,8	-21,7	-4,6	Powell (22.08.2022)	79,3	76,7	81,6
Rudan (28.09.2022)	-24,2	-46,5	-5,3	Cocchio (20.08.2022)	78,0	69,0	84,0
Rudan (28.09.2022)	-24,7	-46,7	-6,0	Powell (22.08.2022)	77,6	69,5	83,6
14-90 days post exposure				Cocchio (20.08.2022)	72,0	69,0	74,0
Powell (22.08.2022)	85,3	83,7	86,8	Cocchio (20.08.2022)	70,0	67,0	72,0
Florentino (08.08.2022)	82,6	80,6	84,5	Powell (22.08.2022)	69,2	55,9	78,5
Powell (22.08.2022)	81,5	80,0	82,9	Florentino (08.08.2022)	61,0	56,9	64,8
Rudan (28.09.2022)	81,2	77,7	84,2	Florentino (08.08.2022)	58,7	56,4	61,0
Powell (22.08.2022)	79,6	44,9	92,4	Powell (22.08.2022)	52,2	50,4	53,9
Powell (22.08.2022)	78,8	77,9	79,5	Tan (20.07.2022)	48,8	46,9	50,8
Florentino (08.08.2022)	77,4	74,7	79,8	Rudan (28.09.2022)	46,9	37,0	55,3
Ionescu (28.06.2022)	75,6	65,8	82,6	Florentino (08.08.2022)	42,5	29,4	53,3
Florentino (08.08.2022)	69,6	66,3	72,6	Florentino (08.08.2022)	37,5	28,5	45,3
Rudan (28.09.2022)	68,5	63,4	72,9	Rudan (28.09.2022)	34,0	13,2	49,9
Piche-Renaud (01.08.2022)	67,0	60,0	72,0	Florentino (08.08.2022)	19,7	10,6	27,9
Rudan (28.09.2022)	65,5	56,0	73,0	Powell (22.08.2022)	15,2	9,9	20,1
Florentino (08.08.2022)	65,4	61,9	68,7	Rudan (28.09.2022)	14,2	-10,3	33,1
Florentino (08.08.2022)	64,7	63,0	66,3	Florentino (08.08.2022)	10,1	-14,2	29,1
Powell (22.08.2022)	64,5	63,6	65,4	Veneti (25.03.2022)	9,5	-55,2	47,3
Ionescu (28.06.2022)	63,4	21,4	83,0	Rudan (28.09.2022)	-18,4	-89,3	26,0
Ionescu (28.06.2022)	59,3	50,9	66,3	No information			

Carazo (03.05.2022)	78,0	70,0	83,0
Tan (20.07.2022)	65,3	62,0	68,3
Fowlkes (11.03.2022)	59,0	24,0	78,0
Ionescu (28.06.2022)	55,2	49,5	60,3
Piche-Renaud (01.08.2022)	54,0	48,0	59,0
Ionescu (28.06.2022)	41,9	37,7	45,8
Cocchio (20.08.2022)	35,0	34,0	37,0
Ionescu (28.06.2022)	33,9	25,7	41,1
Chemaitelly (26.07.2022)	30,6	26,9	34,1
Cocchio (20.08.2022)	30,0	26,0	33,0
Florentino (08.08.2022)	28,0	26,3	29,7

Chemaitelly (26.07.2022)	25,7	10,0	38,6
Florentino (08.08.2022)	25,1	21,3	28,7
Chiew (28.09.2022)	25,0	21,0	29,0
Tan (20.07.2022)	24,3	19,5	28,9
Chiew (28.09.2022)	22,0	13,0	31,0
Cocchio (20.08.2022)	17,0	15,0	20,0
Piche-Renaud (01.08.2022)	13,0	3,0	21,0
Nordstrom (24.10.2022)	-2,0	-4,0	0,0



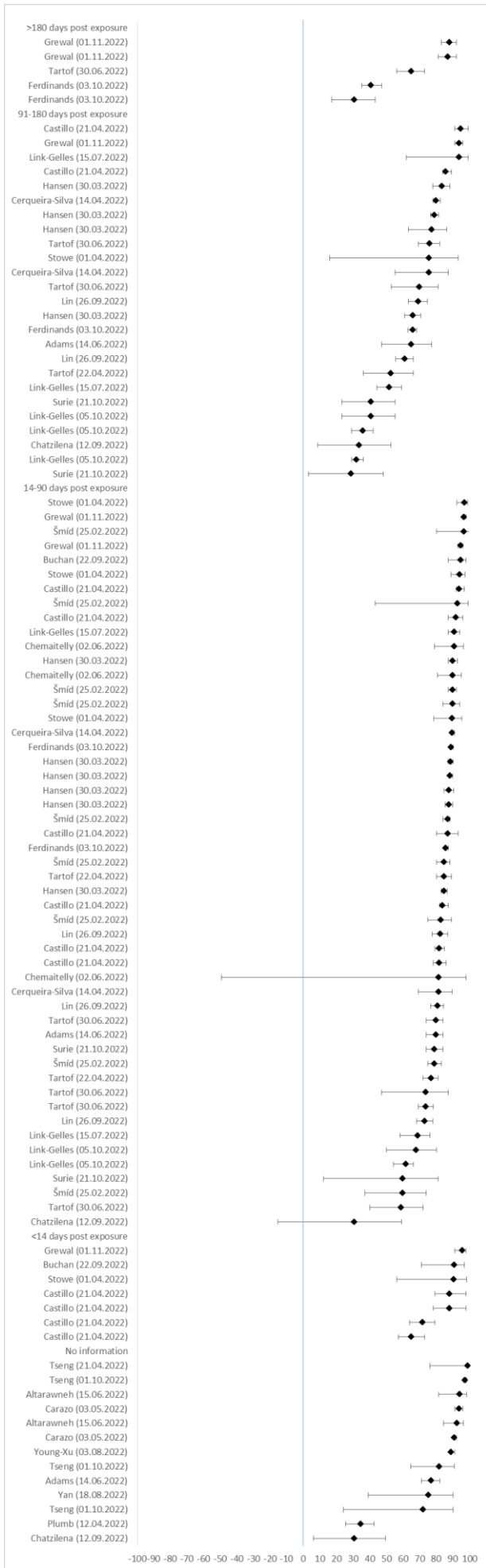
SF16: Severe disease: General population (adults 18+ years), Exposure 3+, Reference unvaccinated (n=10)



Author (Date)	VE in %	lower CI 95%	upper CI 95%
91-180 days post exposure			
Grewal (01.11.2022)	86,0	44,0	96,0
Lin (26.09.2022)	40,7	9,0	61,3
Lin (26.09.2022)	37,3	0,0	64,2
14-90 days post exposure			
Šmíd (25.02.2022)	98,0	95,0	98,0
Grewal (01.11.2022)	97,0	91,0	99,0
Šmíd (25.02.2022)	97,0	87,0	99,0
Grewal (01.11.2022)	93,0	72,0	98,0
Ferdinands (03.10.2022)	76,0	71,0	80,0
Šmíd (25.02.2022)	72,0	0,0	96,0
Ferdinands (03.10.2022)	70,0	56,0	79,0
Surie (21.10.2022)	61,0	37,0	76,0
Surie (21.10.2022)	61,0	29,0	78,0
Lin (26.09.2022)	49,7	16,2	69,8
Lin (26.09.2022)	46,8	21,1	64,2
Lin (26.09.2022)	43,8	19,4	60,9
No information			
Altarawneh (15.06.2022)	100,0	91,8	100,0
Carazo (03.05.2022)	97,0	94,0	99,0
Castillo (21.04.2022)	84,0	72,0	95,0
Link-Gelles (15.07.2022)	80,0	71,0	85,0
Castillo (21.04.2022)	71,0	64,0	78,0
Plumb (12.04.2022)	67,6	61,4	72,8

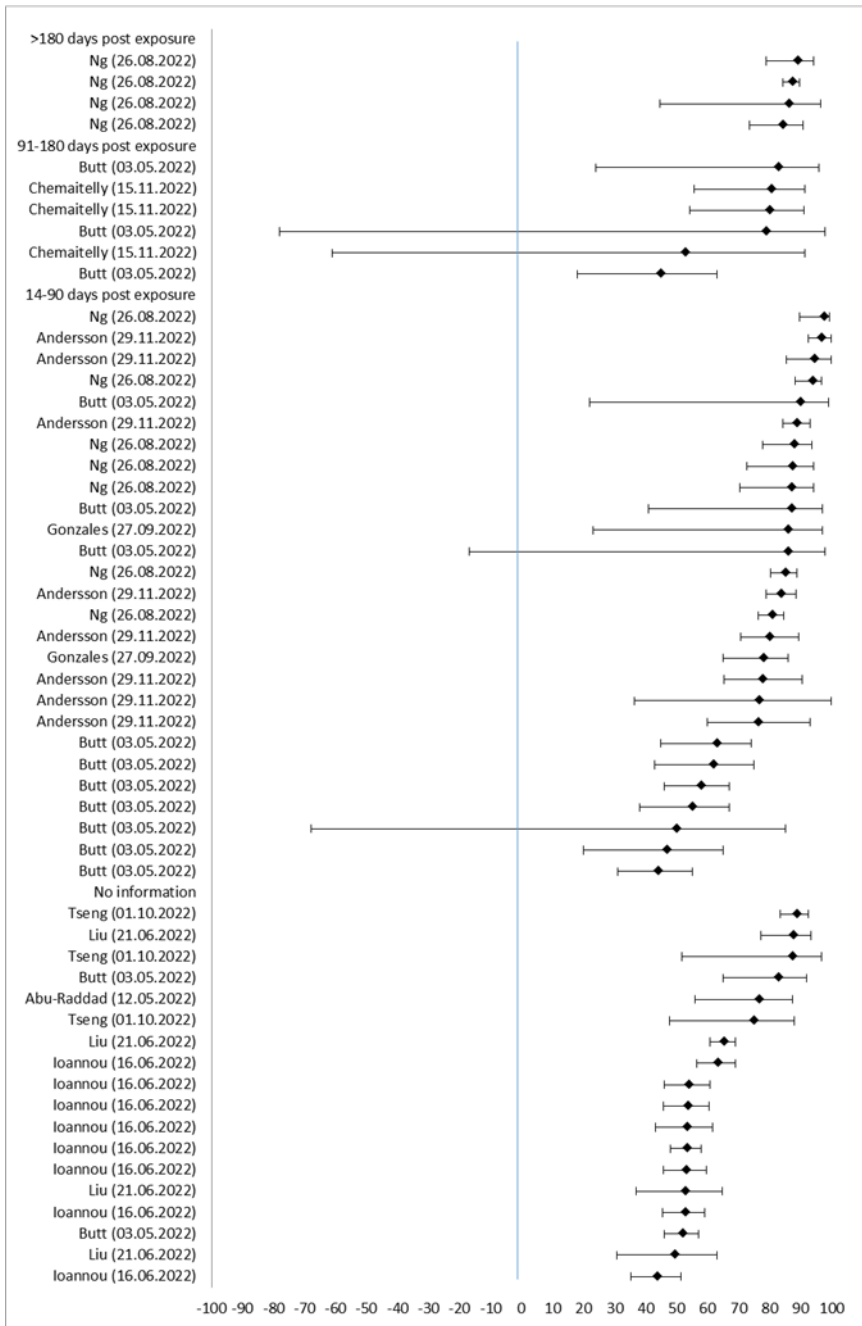
SF17: Severe disease: General population (adults 18+ years), Exposure 3, Reference unvaccinated (n=24)

Author (Date)	VE in %	lower CI 95%	upper CI 95%				
				Hansen (30.03.2022)	88,5	87,4	89,6
				Hansen (30.03.2022)	87,8	84,5	90,4
				Hansen (30.03.2022)	87,7	85,3	89,7
>180 days post exposure				Šmid (25.02.2022)	87,0	84,0	88,0
Grewal (01.11.2022)	88,0	83,0	92,0	Castillo (21.04.2022)	87,0	80,0	93,0
Grewal (01.11.2022)	87,0	81,0	92,0	Ferdinands (03.10.2022)	86,0	85,0	87,0
Tartof (30.06.2022)	65,0	56,0	73,0	Šmid (25.02.2022)	85,0	80,0	88,0
Ferdinands (03.10.2022)	41,0	35,0	47,0	Tartof (22.04.2022)	85,0	80,0	89,0
Ferdinands (03.10.2022)	31,0	17,0	43,0	Hansen (30.03.2022)	84,9	83,1	86,5
91-180 days post exposure				Castillo (21.04.2022)	84,0	82,0	87,0
Castillo (21.04.2022)	95,0	91,0	99,0	Šmid (25.02.2022)	83,0	75,0	89,0
Grewal (01.11.2022)	94,0	91,0	96,0	Lin (26.09.2022)	82,7	77,6	86,7
Link-Gelles (15.07.2022)	94,0	62,0	99,0	Castillo (21.04.2022)	82,0	79,0	85,0
Castillo (21.04.2022)	86,0	84,0	89,0	Castillo (21.04.2022)	82,0	78,0	86,0
Hansen (30.03.2022)	83,6	77,7	88,0	Chemaitelly (02.06.2022)	81,8	-49,5	97,8
Cerqueira-Silva (14.04.2022)	80,2	78,0	82,2	Cerqueira-Silva (14.04.2022)	81,8	69,1	89,3
Hansen (30.03.2022)	79,0	76,5	81,3	Lin (26.09.2022)	80,9	76,6	84,4
Hansen (30.03.2022)	77,3	63,1	86,1	Tartof (22.04.2022)	80,0	74,0	84,0
Tartof (30.06.2022)	76,0	69,0	82,0	Tartof (30.06.2022)	80,0	74,0	84,0
Stowe (01.04.2022)	75,9	15,8	93,1	Adams (14.06.2022)	80,0	74,0	84,0
Cerqueira-Silva (14.04.2022)	75,8	55,0	87,0	Surie (21.10.2022)	79,0	74,0	84,0
Tartof (30.06.2022)	70,0	53,0	81,0	Šmid (25.02.2022)	79,0	75,0	83,0
Lin (26.09.2022)	69,4	63,1	74,6	Tartof (22.04.2022)	77,0	72,0	81,0
Hansen (30.03.2022)	66,2	61,1	70,7	Tartof (30.06.2022)	74,0	47,0	87,0
Ferdinands (03.10.2022)	66,0	63,0	68,0	Tartof (30.06.2022)	74,0	69,0	78,0
Adams (14.06.2022)	65,0	47,0	77,0	Lin (26.09.2022)	73,3	68,0	77,7
Lin (26.09.2022)	61,2	55,3	66,2	Link-Gelles (15.07.2022)	69,0	58,0	76,0
Tartof (22.04.2022)	53,0	36,0	66,0	Link-Gelles (05.10.2022)	68,0	50,0	80,0
Link-Gelles (15.07.2022)	52,0	44,0	59,0	Link-Gelles (05.10.2022)	62,0	54,0	66,0
Surie (21.10.2022)	41,0	23,0	55,0	Surie (21.10.2022)	60,0	12,0	81,0
Link-Gelles (05.10.2022)	41,0	23,0	55,0	Šmid (25.02.2022)	60,0	37,0	74,0
Link-Gelles (05.10.2022)	36,0	29,0	42,0	Tartof (30.06.2022)	59,0	40,0	72,0
Chatzilena (12.09.2022)	33,9	8,4	52,4	Chatzilena (12.09.2022)	31,0	-15,3	59,1
Link-Gelles (05.10.2022)	32,0	29,0	36,0				
Surie (21.10.2022)	29,0	3,0	48,0	<14 days post exposure			
14-90 days post exposure				Grewal (01.11.2022)	96,0	91,0	98,0
Stowe (01.04.2022)	97,1	92,2	98,9	Buchan (22.09.2022)	91,0	71,0	97,0
Grewal (01.11.2022)	97,0	96,0	98,0	Stowe (01.04.2022)	90,7	56,0	98,1
Šmid (25.02.2022)	97,0	80,0	100,0	Castillo (21.04.2022)	88,0	79,0	98,0
Grewal (01.11.2022)	95,0	93,0	96,0	Castillo (21.04.2022)	88,0	78,0	98,0
Buchan (22.09.2022)	95,0	87,0	98,0	Castillo (21.04.2022)	72,0	64,0	79,0
Stowe (01.04.2022)	94,3	88,9	97,1	Castillo (21.04.2022)	65,0	57,0	73,0
Castillo (21.04.2022)	94,0	92,0	97,0	No information			
Šmid (25.02.2022)	93,0	43,0	99,0	Tseng (21.04.2022)	99,2	76,3	100,0
Castillo (21.04.2022)	92,0	87,0	96,0	Tseng (01.10.2022)	97,5	96,3	98,3
Link-Gelles (15.07.2022)	91,0	87,0	94,0	Altarawneh (15.06.2022)	94,3	81,3	98,3
Chemaitelly (02.06.2022)	90,9	78,6	96,1	Carazo (03.05.2022)	94,0	91,0	96,0
Hansen (30.03.2022)	90,2	87,3	92,5	Altarawneh (15.06.2022)	92,5	84,4	96,3
Chemaitelly (02.06.2022)	90,1	80,6	95,0	Carazo (03.05.2022)	91,0	91,0	92,0
Šmid (25.02.2022)	90,0	87,0	92,0	Young-Xu (03.08.2022)	89,0	88,0	91,0
Šmid (25.02.2022)	90,0	84,0	94,0	Tseng (01.10.2022)	82,0	64,5	90,8
Stowe (01.04.2022)	89,9	78,3	95,3	Adams (14.06.2022)	77,0	71,0	82,0
Cerqueira-Silva (14.04.2022)	89,8	88,9	90,6	Yan (18.08.2022)	75,5	38,9	90,2
Ferdinands (03.10.2022)	89,0	88,0	90,0	Tseng (01.10.2022)	72,4	23,9	90,0
Hansen (30.03.2022)	88,8	87,3	90,1	Plumb (12.04.2022)	34,6	25,5	42,5
				Chatzilena (12.09.2022)	30,9	5,9	49,3



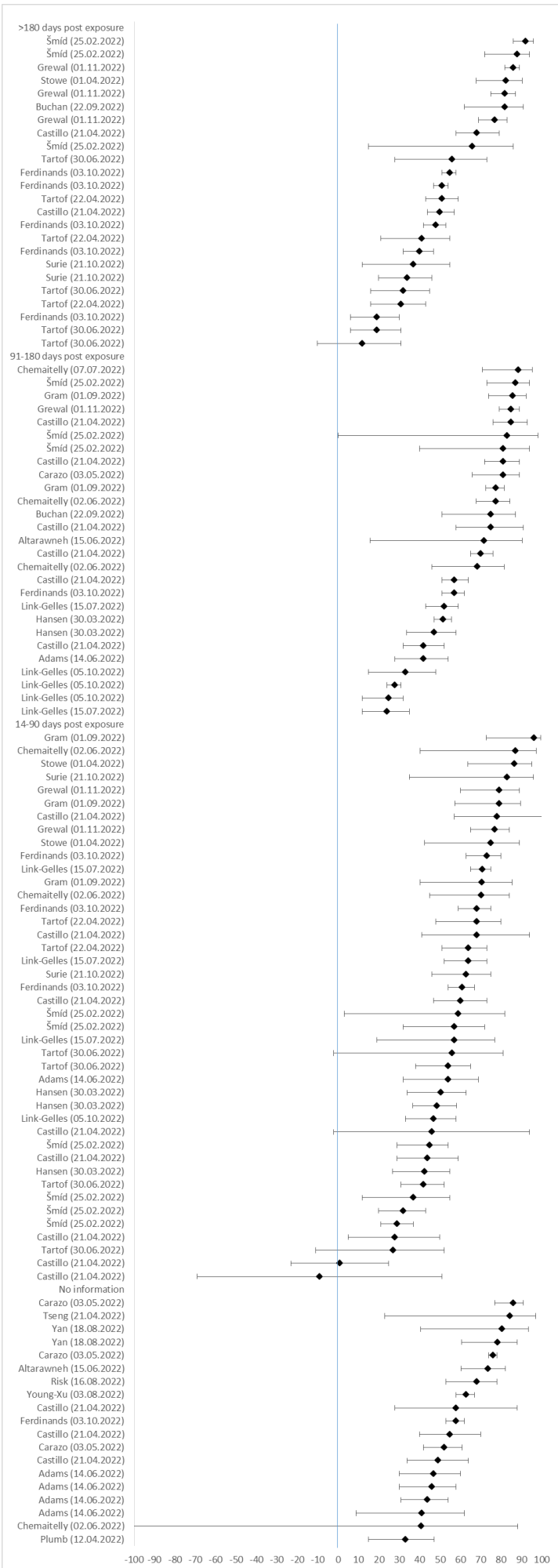
SF18: Severe disease: General population (adults 18+), Exposure 3, Reference less exposures (2 exposures) (n=9)

Author (date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Ng (26.08.2022)	89,0	78,9	94,2
Ng (26.08.2022)	87,3	84,2	89,8
Ng (26.08.2022)	86,3	44,7	96,6
Ng (26.08.2022)	84,4	73,4	90,9
91-180 days post exposure			
Butt (03.05.2022)	83,0	24,0	96,0
Chemaitelly (15.11.2022)	80,5	55,7	91,4
Chemaitelly (15.11.2022)	79,9	54,2	91,2
Butt (03.05.2022)	79,0	-78,0	98,0
Chemaitelly (15.11.2022)	52,8	-61,2	91,4
Butt (03.05.2022)	45,0	18,0	63,0
14-90 days post exposure			
Ng (26.08.2022)	97,5	89,7	99,4
Andersson (29.11.2022)	96,8	92,6	100
Andersson (29.11.2022)	94,4	85,5	100
Ng (26.08.2022)	93,8	88,2	96,8
Butt (03.05.2022)	90,0	22,0	99,0
Andersson (29.11.2022)	88,7	84,2	93,2
Ng (26.08.2022)	88,0	77,8	93,6
Ng (26.08.2022)	87,3	72,8	94,1
Ng (26.08.2022)	87,0	70,4	94,3
Butt (03.05.2022)	87,0	41,0	97,0
Gonzales (27.09.2022)	86,0	23,0	97,0
Butt (03.05.2022)	86,0	-17,0	98,0
Ng (26.08.2022)	85,2	80,2	88,9
Andersson (29.11.2022)	83,7	79,0	88,4
Ng (26.08.2022)	81,0	76,3	84,7
Andersson (29.11.2022)	80,1	70,8	89,3
Gonzales (27.09.2022)	78,0	65,0	86,0
Andersson (29.11.2022)	77,9	65,2	90,6
Andersson (29.11.2022)	76,5	36,5	100
Andersson (29.11.2022)	76,3	59,9	93,1
Butt (03.05.2022)	63,0	45,0	74,0
Butt (03.05.2022)	62,0	43,0	75,0
Butt (03.05.2022)	58,0	46,0	67,0
Butt (03.05.2022)	55,0	38,0	67,0
Butt (03.05.2022)	50,0	-68,0	85,0
Butt (03.05.2022)	47,0	20,0	65,0
Butt (03.05.2022)	44,0	31,0	55,0
No information			
Tseng (01.10.2022)	88,8	83,3	92,5
Liu (21.06.2022)	87,8	77,3	93,4
Tseng (01.10.2022)	87,5	51,8	96,8
Butt (03.05.2022)	83,0	65,0	92,0
Abu-Raddad (12.05.2022)	76,5	55,9	87,5
Tseng (01.10.2022)	75,0	47,6	88,1
Liu (21.06.2022)	65,2	60,8	69,1
Ioannou (16.06.2022)	63,2	56,4	69,0
Ioannou (16.06.2022)	54,0	46,1	60,8
Ioannou (16.06.2022)	53,7	45,8	60,4
Ioannou (16.06.2022)	53,3	43,2	61,6
Ioannou (16.06.2022)	53,3	48,1	58,0
Ioannou (16.06.2022)	53,1	45,7	59,5
Liu (21.06.2022)	52,9	36,9	64,8
Ioannou (16.06.2022)	52,9	45,6	59,2
Butt (03.05.2022)	52,0	46,0	57,0
Liu (21.06.2022)	49,4	30,8	63,0
Ioannou (16.06.2022)	43,8	35,2	51,3

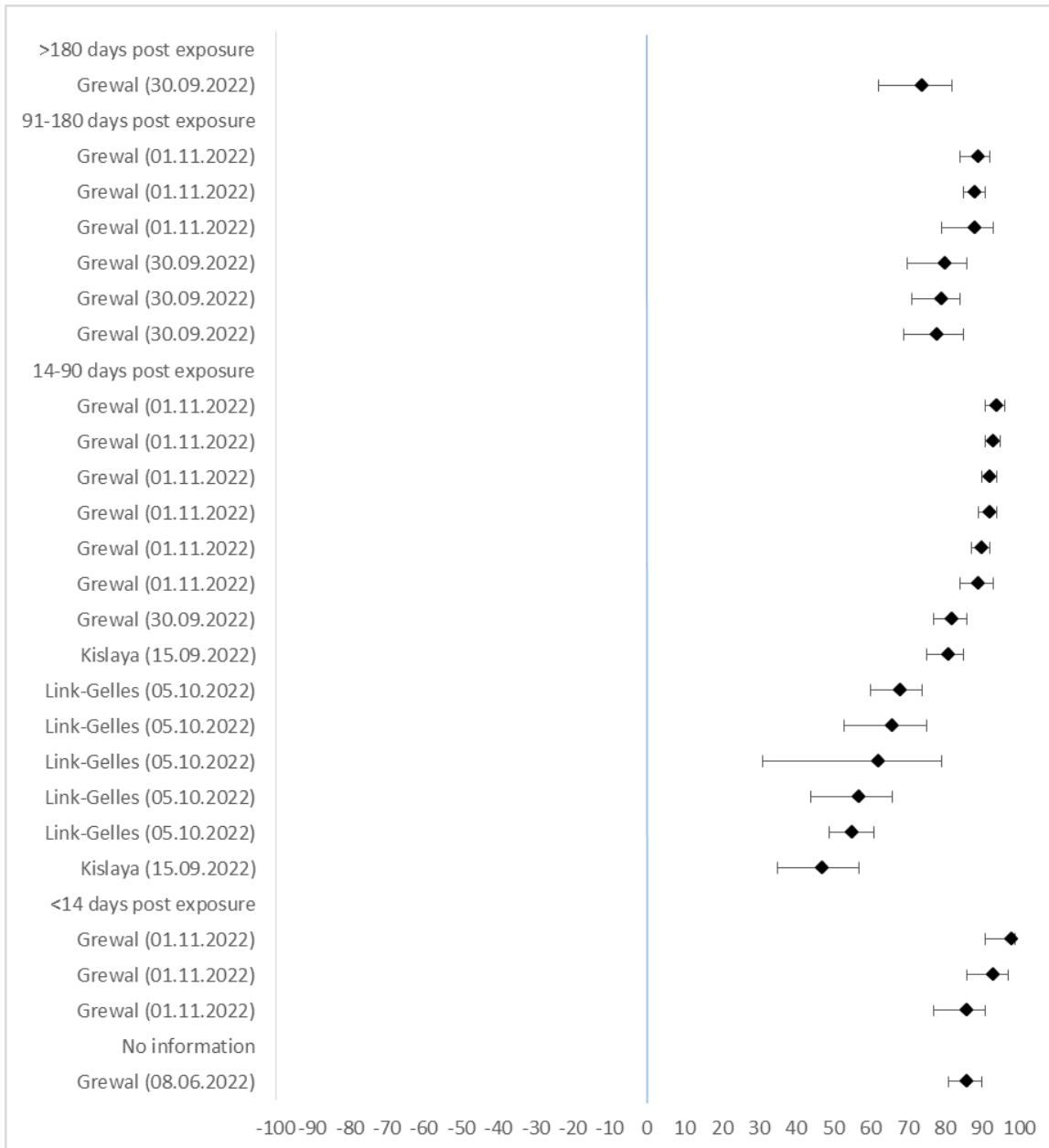


SF19: Severe disease: General population (adults 18+ years), Exposure 1-3, Reference unvaccinated (n=23)

Author (Date)	VE in %	lower CI 95%	upper CI 95%				
>180 days post exposure				Surie (21.10.2022)	83,0	35,0	96,0
Šmíd (25.02.2022)	92,0	86,0	96,0	Grewal (01.11.2022)	79,0	60,0	89,0
Šmíd (25.02.2022)	88,0	72,0	94,0	Gram (01.09.2022)	79,0	57,5	89,6
Grewal (01.11.2022)	86,0	82,0	89,0	Castillo (21.04.2022)	78,0	57,0	100,0
Stowe (01.04.2022)	82,3	67,7	90,3	Grewal (01.11.2022)	77,0	65,0	84,0
Grewal (01.11.2022)	82,0	75,0	87,0	Stowe (01.04.2022)	75,0	42,4	89,1
Buchan (22.09.2022)	82,0	62,0	91,0	Ferdinands (03.10.2022)	73,0	63,0	80,0
Grewal (01.11.2022)	77,0	69,0	83,0	Link-Gelles (15.07.2022)	71,0	65,0	75,0
Castillo (21.04.2022)	68,0	58,0	79,0	Gram (01.09.2022)	70,5	40,3	85,5
Šmíd (25.02.2022)	66,0	15,0	86,0	Chemaitelly (02.06.2022)	70,4	45,0	84,0
Tartof (30.06.2022)	56,0	28,0	73,0	Ferdinands (03.10.2022)	68,0	59,0	75,0
Ferdinands (03.10.2022)	55,0	51,0	58,0	Tartof (22.04.2022)	68,0	48,0	80,0
Ferdinands (03.10.2022)	51,0	47,0	54,0	Castillo (21.04.2022)	68,0	41,0	94,0
Tartof (22.04.2022)	51,0	43,0	59,0	Tartof (22.04.2022)	64,0	51,0	73,0
Castillo (21.04.2022)	50,0	44,0	57,0	Link-Gelles (15.07.2022)	64,0	52,0	73,0
Ferdinands (03.10.2022)	48,0	42,0	53,0	Surie (21.10.2022)	63,0	46,0	75,0
Tartof (22.04.2022)	41,0	21,0	55,0	Ferdinands (03.10.2022)	61,0	54,0	67,0
Ferdinands (03.10.2022)	40,0	32,0	47,0	Castillo (21.04.2022)	60,0	47,0	73,0
Surie (21.10.2022)	37,0	12,0	55,0	Šmíd (25.02.2022)	59,0	3,0	82,0
Surie (21.10.2022)	34,0	20,0	46,0	Šmíd (25.02.2022)	57,0	32,0	72,0
Tartof (30.06.2022)	32,0	16,0	45,0	Link-Gelles (15.07.2022)	57,0	19,0	77,0
Tartof (22.04.2022)	31,0	16,0	43,0	Tartof (30.06.2022)	56,0	-2,0	81,0
Ferdinands (03.10.2022)	19,0	6,0	30,0	Tartof (30.06.2022)	54,0	38,0	65,0
Tartof (30.06.2022)	19,0	6,0	31,0	Adams (14.06.2022)	54,0	32,0	69,0
Tartof (30.06.2022)	12,0	-10,0	31,0	Hansen (30.03.2022)	50,5	33,9	63,0
91-180 days post exposure				Hansen (30.03.2022)	48,5	36,6	58,2
Chemaitelly (07.07.2022)	88,6	70,9	95,5	Link-Gelles (05.10.2022)	47,0	33,0	58,0
Šmíd (25.02.2022)	87,0	73,0	94,0	Castillo (21.04.2022)	46,0	-2,0	94,0
Gram (01.09.2022)	85,8	73,8	92,3	Šmíd (25.02.2022)	45,0	29,0	54,0
Grewal (01.11.2022)	85,0	79,0	89,0	Castillo (21.04.2022)	44,0	29,0	59,0
Castillo (21.04.2022)	85,0	76,0	93,0	Hansen (30.03.2022)	42,6	26,9	54,9
Šmíd (25.02.2022)	83,0	0,0	98,0	Tartof (30.06.2022)	42,0	31,0	52,0
Šmíd (25.02.2022)	81,0	40,0	94,0	Šmíd (25.02.2022)	37,0	12,0	55,0
Castillo (21.04.2022)	81,0	72,0	89,0	Šmíd (25.02.2022)	32,0	20,0	43,0
Carazo (03.05.2022)	81,0	66,0	89,0	Šmíd (25.02.2022)	29,0	21,0	37,0
Gram (01.09.2022)	77,6	72,6	81,6	Castillo (21.04.2022)	28,0	5,0	50,0
Chemaitelly (02.06.2022)	77,5	67,8	84,3	Tartof (30.06.2022)	27,0	-11,0	52,0
Buchan (22.09.2022)	75,0	51,0	87,0	Castillo (21.04.2022)	1,0	-23,0	25,0
Castillo (21.04.2022)	75,0	58,0	91,0	Castillo (21.04.2022)	-9,0	-69,0	51,0
Altarawneh (15.06.2022)	71,6	15,7	90,4	No information			
Castillo (21.04.2022)	70,0	65,0	76,0	Carazo (03.05.2022)	86,0	77,0	91,0
Chemaitelly (02.06.2022)	68,4	46,1	81,5	Tseng (21.04.2022)	84,5	23,0	96,9
Castillo (21.04.2022)	57,0	51,0	64,0	Yan (18.08.2022)	80,4	40,7	93,5
Ferdinands (03.10.2022)	57,0	51,0	62,0	Yan (18.08.2022)	78,3	60,8	88,0
Link-Gelles (15.07.2022)	52,0	43,0	59,0	Carazo (03.05.2022)	76,0	74,0	78,0
Hansen (30.03.2022)	51,6	47,2	55,6	Altarawneh (15.06.2022)	73,5	60,5	82,2
Hansen (30.03.2022)	47,2	33,7	57,9	Risk (16.08.2022)	68,0	53,0	78,0
Castillo (21.04.2022)	42,0	32,0	52,0	Young-Xu (03.08.2022)	63,0	58,0	67,0
Adams (14.06.2022)	42,0	28,0	54,0	Castillo (21.04.2022)	58,0	28,0	88,0
Link-Gelles (05.10.2022)	33,0	15,0	48,0	Ferdinands (03.10.2022)	58,0	53,0	62,0
Link-Gelles (05.10.2022)	28,0	24,0	31,0	Castillo (21.04.2022)	55,0	40,0	70,0
Link-Gelles (15.07.2022)	24,0	12,0	35,0	Carazo (03.05.2022)	52,0	42,0	61,0
14-90 days post exposure				Castillo (21.04.2022)	49,0	34,0	64,0
Gram (01.09.2022)	96,2	72,9	99,5	Adams (14.06.2022)	47,0	30,0	60,0
Chemaitelly (02.06.2022)	87,1	40,2	97,2	Adams (14.06.2022)	46,0	30,0	58,0
Stowe (01.04.2022)	86,7	63,6	95,1	Adams (14.06.2022)	44,0	31,0	54,0
				Adams (14.06.2022)	41,0	9,0	62,0
				Chemaitelly (02.06.2022)	40,9	-199,1	88,3
				Plumb (12.04.2022)	33,0	15,0	47,2

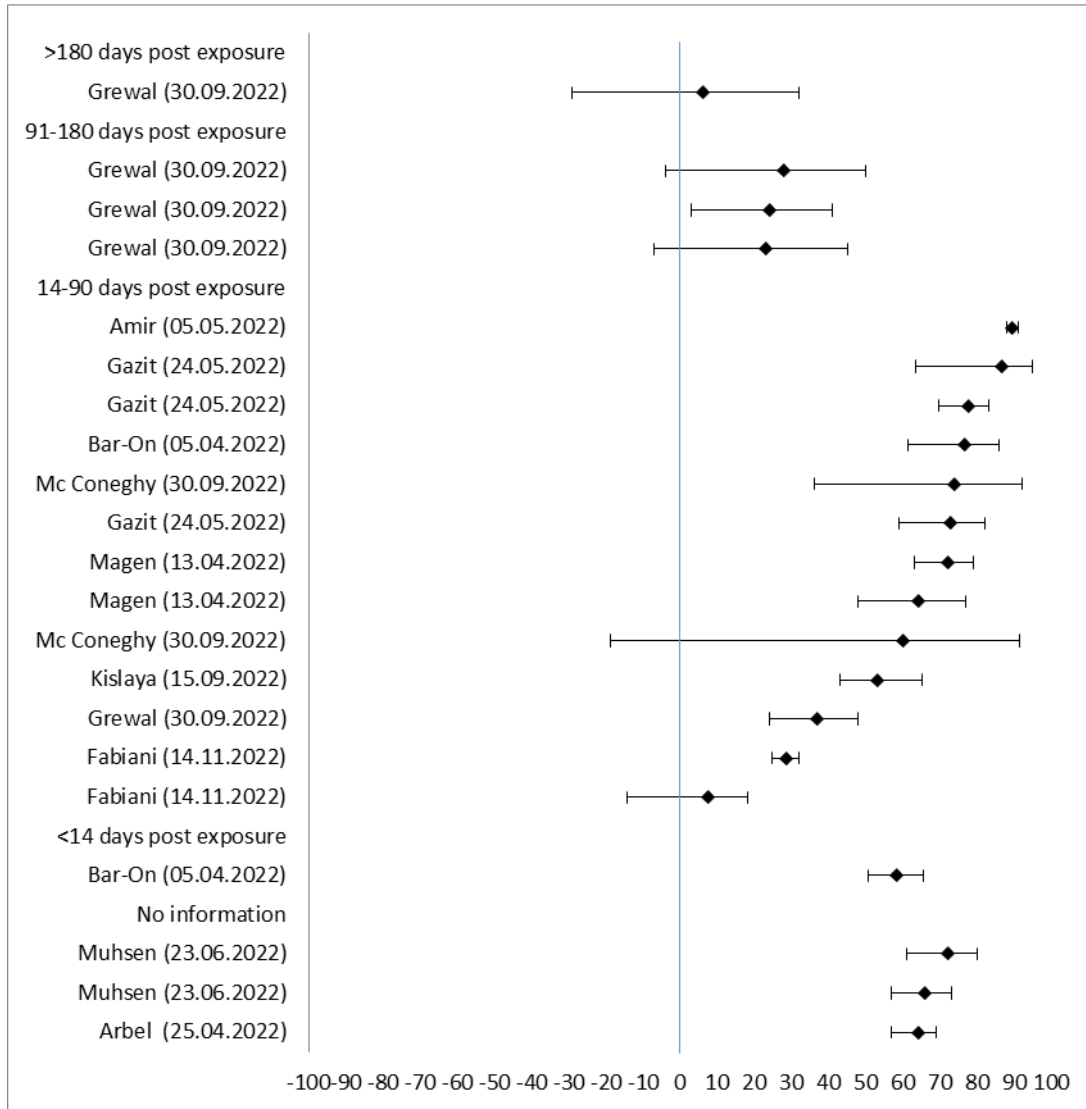


SF20: Severe disease: Older adults (60+ years), Exposure 3+, Reference unvaccinated (n=4)



Author (Date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Grewal (30.09.2022)	74,0	62,0	82,0
91-180 days post exposure			
Grewal (01.11.2022)	89,0	84,0	92,0
Grewal (01.11.2022)	88,0	85,0	91,0
Grewal (01.11.2022)	88,0	79,0	93,0
Grewal (30.09.2022)	80,0	70,0	86,0
Grewal (30.09.2022)	79,0	71,0	84,0
Grewal (30.09.2022)	78,0	69,0	85,0
14-90 days post exposure			
Grewal (01.11.2022)	94,0	91,0	96,0
Grewal (01.11.2022)	93,0	91,0	95,0
Grewal (01.11.2022)	92,0	90,0	94,0
Grewal (01.11.2022)	92,0	89,0	94,0
Grewal (01.11.2022)	90,0	87,0	92,0
Grewal (01.11.2022)	89,0	84,0	93,0
Grewal (30.09.2022)	82,0	77,0	86,0
Kislaya (15.09.2022)	81,0	75,0	85,0
Link-Gelles (05.10.2022)	68,0	60,0	74,0
Link-Gelles (05.10.2022)	66,0	53,0	75,0
Link-Gelles (05.10.2022)	62,0	31,0	79,0
Link-Gelles (05.10.2022)	57,0	44,0	66,0
Link-Gelles (05.10.2022)	55,0	49,0	61,0
Kislaya (15.09.2022)	47,0	35,0	57,0
<14 days post exposure			
Grewal (01.11.2022)	98,0	91,0	99,0
Grewal (01.11.2022)	93,0	86,0	97,0
Grewal (01.11.2022)	86,0	77,0	91,0
No information			
Grewal (08.06.2022)	86,0	81,0	90,0

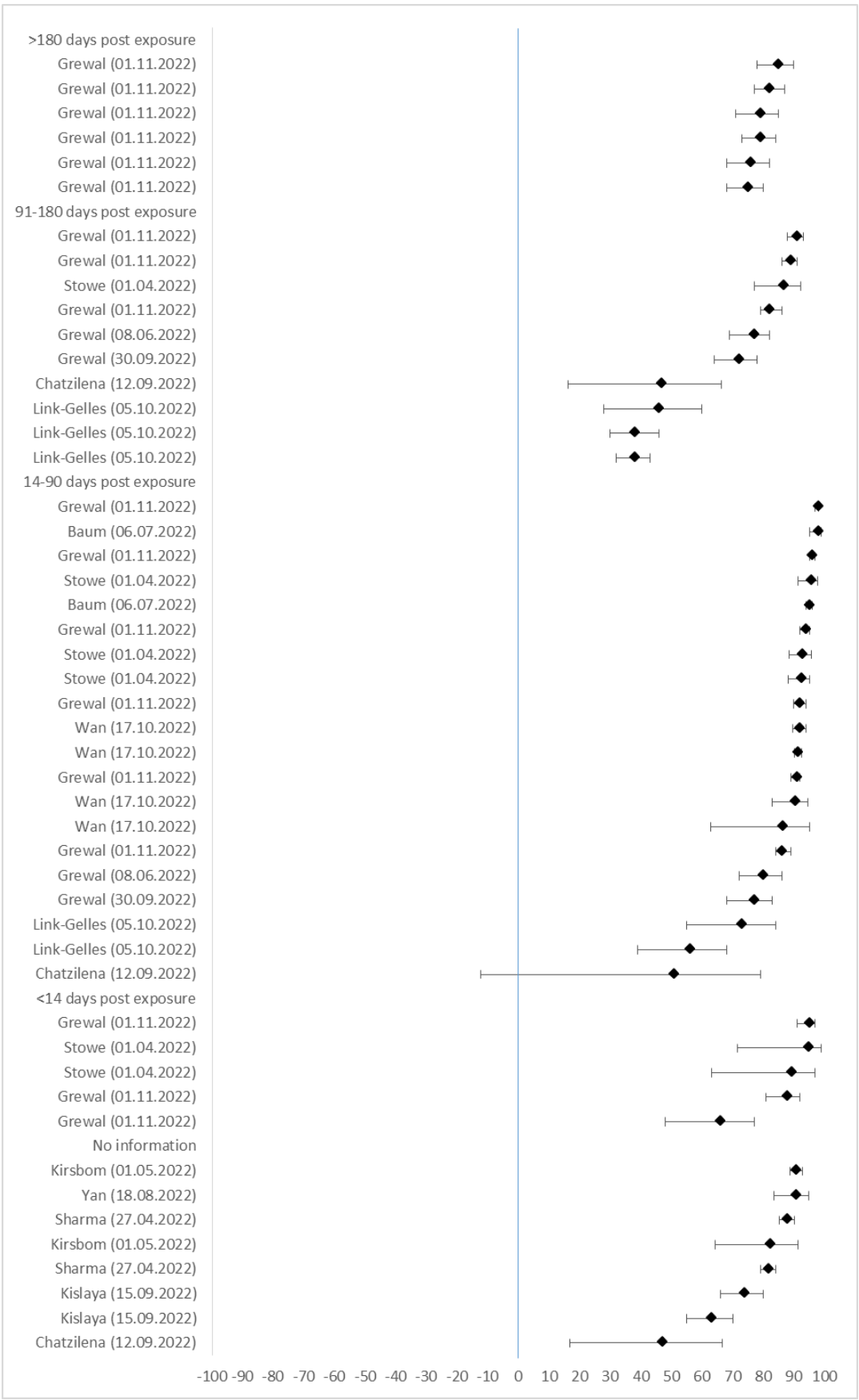
SF21: Severe disease: Older adults (60+ years), Exposure 3+, Reference less exposures (3 exposures) (n=10)



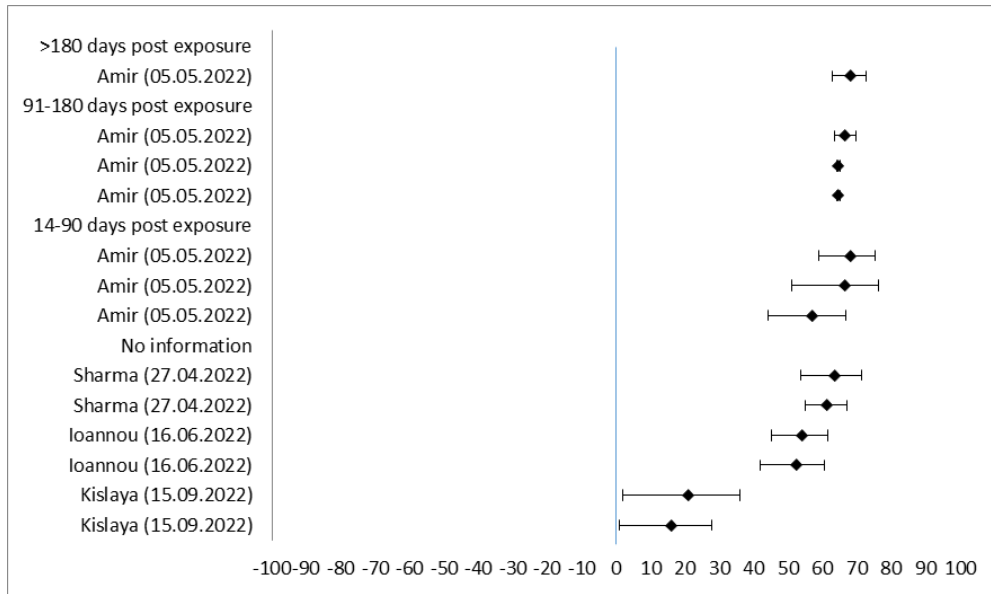
Author (date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Grewal (30.09.2022)	6,0	-29,0	32,0
91-180 days post exposure			
Grewal (30.09.2022)	28,0	-4,0	50,0
Grewal (30.09.2022)	24,0	3,0	41,0
Grewal (30.09.2022)	23,0	-7,0	45,0
14-90 days post exposure			
Amir (05.05.2022)	89,2	88,0	91,0
Gazit (24.05.2022)	86,5	63,4	95,0
Gazit (24.05.2022)	77,5	69,7	83,2
Bar-On (05.04.2022)	76,7	61,5	85,9
Mc Coneyhy (30.09.2022)	73,9	36,1	92,2
Gazit (24.05.2022)	72,8	58,8	82,1
Magen (13.04.2022)	72,0	63,0	79,0
Magen (13.04.2022)	64,0	48,0	77,0
Mc Coneyhy (30.09.2022)	60,1	-18,8	91,5
Kislaya (15.09.2022)	53,0	43,0	65,0
Grewal (30.09.2022)	37,0	24,0	48,0
Fabiani (14.11.2022)	28,5	24,7	32,1
Fabiani (14.11.2022)	7,6	-14,1	18,3
<14 days post exposure			
Bar-On (05.04.2022)	58,3	50,5	65,5
No information			
Muhsen (23.06.2022)	72,0	61,0	80,0
Muhsen (23.06.2022)	66,0	57,0	73,0
Arbel (25.04.2022)	64,0	57,0	69,0

SF22: Severe disease: Older adults (60+ years), Exposure 3, Reference unvaccinated (n=12)

Author (Date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Grewal (01.11.2022)	85,0	78,0	90,0
Grewal (01.11.2022)	82,0	77,0	87,0
Grewal (01.11.2022)	79,0	71,0	85,0
Grewal (01.11.2022)	79,0	73,0	84,0
Grewal (01.11.2022)	76,0	68,0	82,0
Grewal (01.11.2022)	75,0	68,0	80,0
91-180 days post exposure			
Grewal (01.11.2022)	91,0	88,0	93,0
Grewal (01.11.2022)	89,0	86,0	91,0
Stowe (01.04.2022)	86,8	77,1	92,3
Grewal (01.11.2022)	82,0	79,0	86,0
Grewal (08.06.2022)	77,0	69,0	82,0
Grewal (30.09.2022)	72,0	64,0	78,0
Chatzilena (12.09.2022)	46,9	16,3	66,4
Link-Gelles (05.10.2022)	46,0	28,0	60,0
Link-Gelles (05.10.2022)	38,0	30,0	46,0
Link-Gelles (05.10.2022)	38,0	32,0	43,0
14-90 days post exposure			
Grewal (01.11.2022)	98,0	97,0	98,0
Baum (06.07.2022)	98,0	95,0	99,0
Grewal (01.11.2022)	96,0	95,0	97,0
Stowe (01.04.2022)	95,8	91,3	97,9
Baum (06.07.2022)	95,0	94,0	96,0
Grewal (01.11.2022)	94,0	92,0	95,0
Stowe (01.04.2022)	92,8	88,4	95,6
Stowe (01.04.2022)	92,5	88,1	95,2
Grewal (01.11.2022)	92,0	90,0	94,0
Wan (17.10.2022)	92,0	89,5	93,9
Wan (17.10.2022)	91,4	90,1	92,5
Grewal (01.11.2022)	91,0	89,0	92,0
Wan (17.10.2022)	90,4	82,9	94,6
Wan (17.10.2022)	86,4	62,8	95,1
Grewal (01.11.2022)	86,0	84,0	89,0
Grewal (08.06.2022)	80,0	72,0	86,0
Grewal (30.09.2022)	77,0	68,0	83,0
Link-Gelles (05.10.2022)	73,0	55,0	84,0
Link-Gelles (05.10.2022)	56,0	39,0	68,0
Chatzilena (12.09.2022)	50,8	-12,2	79,2
<14 days post exposure			
Grewal (01.11.2022)	95,0	91,0	97,0
Stowe (01.04.2022)	94,7	71,6	99,0
Stowe (01.04.2022)	89,2	63,1	96,8
Grewal (01.11.2022)	88,0	81,0	92,0
Grewal (01.11.2022)	66,0	48,0	77,0
No information			
Kirsbom (01.05.2022)	90,9	88,7	92,7
Yan (18.08.2022)	90,8	83,4	94,9
Sharma (27.04.2022)	87,9	85,3	90,2
Kirsbom (01.05.2022)	82,3	64,2	91,3
Sharma (27.04.2022)	81,8	79,2	84,2
Kislaya (15.09.2022)	74,0	66,0	80,0
Kislaya (15.09.2022)	63,0	55,0	70,0
Chatzilena (12.09.2022)	47,2	16,8	66,6



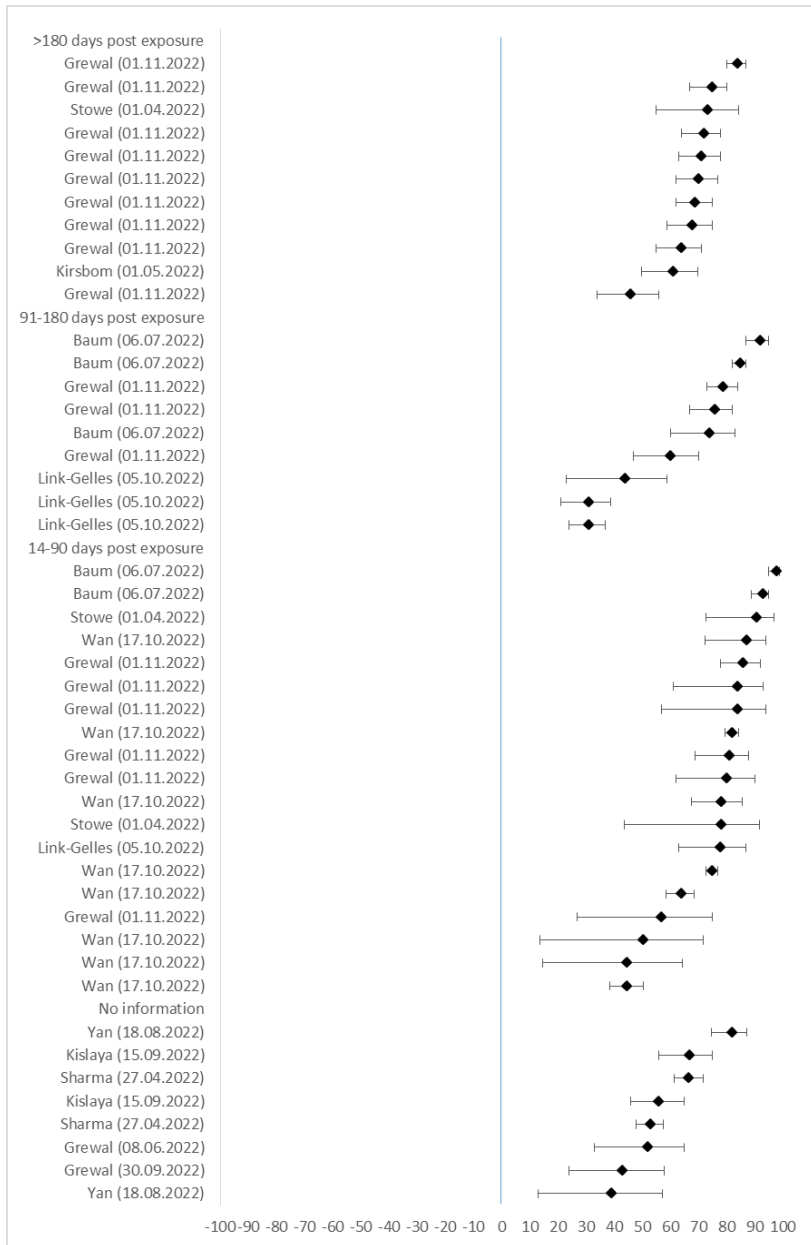
SF23: Severe disease: Older adults (60+ years), Exposure 3, Reference less exposures (2 exposures) (n=4)



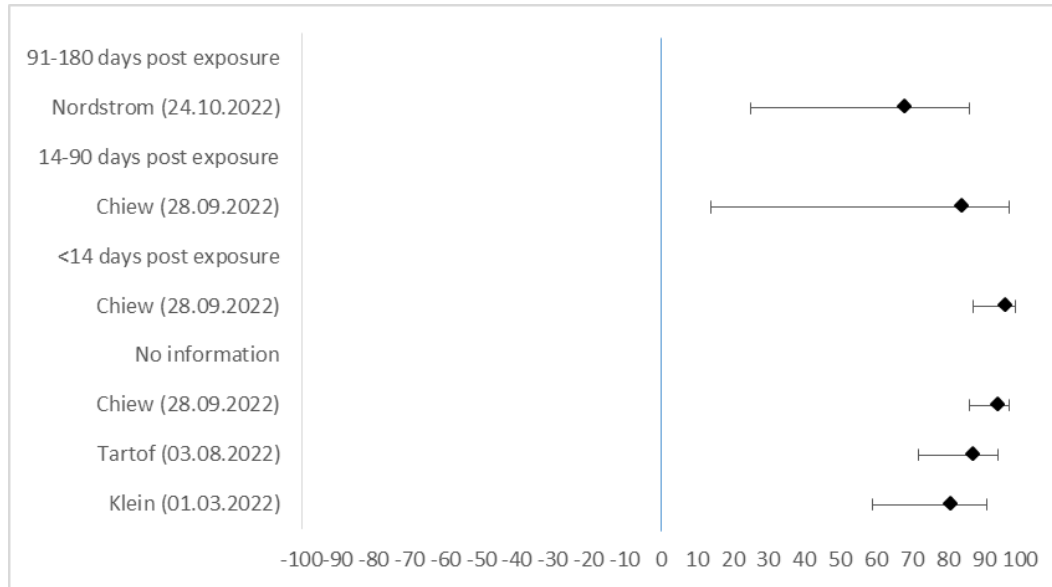
Author (date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Amir (05.05.2022)	68,1	62,8	72,6
91-180 days post exposure			
Amir (05.05.2022)	66,4	63,6	69,8
Amir (05.05.2022)	64,7	64,2	65,1
Amir (05.05.2022)	64,7	64,3	65,1
14-90 days post exposure			
Amir (05.05.2022)	68,1	58,9	75,5
Amir (05.05.2022)	66,4	51,2	76,4
Amir (05.05.2022)	56,9	44,2	67,0
No information			
Sharma (27.04.2022)	63,5	53,7	71,6
Sharma (27.04.2022)	61,4	55,0	67,1
Ioannou (16.06.2022)	54,2	45,4	61,6
Ioannou (16.06.2022)	52,3	42,1	60,7
Kislaya (15.09.2022)	21,0	2,0	36,0
Kislaya (15.09.2022)	16,0	1,0	28,0

SF24: Severe disease: Older adults (60+ years), Exposure 1-3, Reference unvaccinated (n=11)

Author (Date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Grewal (01.11.2022)	84,0	80,0	87,0
Grewal (01.11.2022)	75,0	67,0	80,0
Stowe (01.04.2022)	73,4	55,1	84,3
Grewal (01.11.2022)	72,0	64,0	78,0
Grewal (01.11.2022)	71,0	63,0	78,0
Grewal (01.11.2022)	70,0	62,0	77,0
Grewal (01.11.2022)	69,0	62,0	75,0
Grewal (01.11.2022)	68,0	59,0	75,0
Grewal (01.11.2022)	64,0	55,0	71,0
Kirsbom (01.05.2022)	61,0	49,8	69,7
Grewal (01.11.2022)	46,0	34,0	56,0
91-180 days post exposure			
Baum (06.07.2022)	92,0	87,0	95,0
Baum (06.07.2022)	85,0	82,0	87,0
Grewal (01.11.2022)	79,0	73,0	84,0
Grewal (01.11.2022)	76,0	67,0	82,0
Baum (06.07.2022)	74,0	60,0	83,0
Grewal (01.11.2022)	60,0	47,0	70,0
Link-Gelles (05.10.2022)	44,0	23,0	59,0
Link-Gelles (05.10.2022)	31,0	21,0	39,0
Link-Gelles (05.10.2022)	31,0	24,0	37,0
14-90 days post exposure			
Baum (06.07.2022)	98,0	95,0	99,0
Baum (06.07.2022)	93,0	89,0	95,0
Stowe (01.04.2022)	90,9	72,6	97,0
Wan (17.10.2022)	87,1	72,3	94,0
Grewal (01.11.2022)	86,0	78,0	92,0
Grewal (01.11.2022)	84,0	61,0	93,0
Grewal (01.11.2022)	84,0	57,0	94,0
Wan (17.10.2022)	82,0	79,6	84,2
Grewal (01.11.2022)	81,0	69,0	88,0
Grewal (01.11.2022)	80,0	62,0	90,0
Wan (17.10.2022)	78,3	67,6	85,5
Stowe (01.04.2022)	78,3	43,7	91,7
Link-Gelles (05.10.2022)	78,0	63,0	87,0
Wan (17.10.2022)	74,9	72,6	77,0
Wan (17.10.2022)	63,9	58,6	68,4
Grewal (01.11.2022)	57,0	27,0	75,0
Wan (17.10.2022)	50,5	13,7	71,6
Wan (17.10.2022)	44,8	14,8	64,3
Wan (17.10.2022)	44,8	38,4	50,5
No information			
Yan (18.08.2022)	82,1	74,6	87,3
Kislaya (15.09.2022)	67,0	56,0	75,0
Sharma (27.04.2022)	66,7	61,4	71,6
Kislaya (15.09.2022)	56,0	46,0	65,0
Sharma (27.04.2022)	52,9	47,8	57,6
Grewal (08.06.2022)	52,0	33,0	65,0
Grewal (30.09.2022)	43,0	24,0	58,0
Yan (18.08.2022)	39,1	13,0	57,4



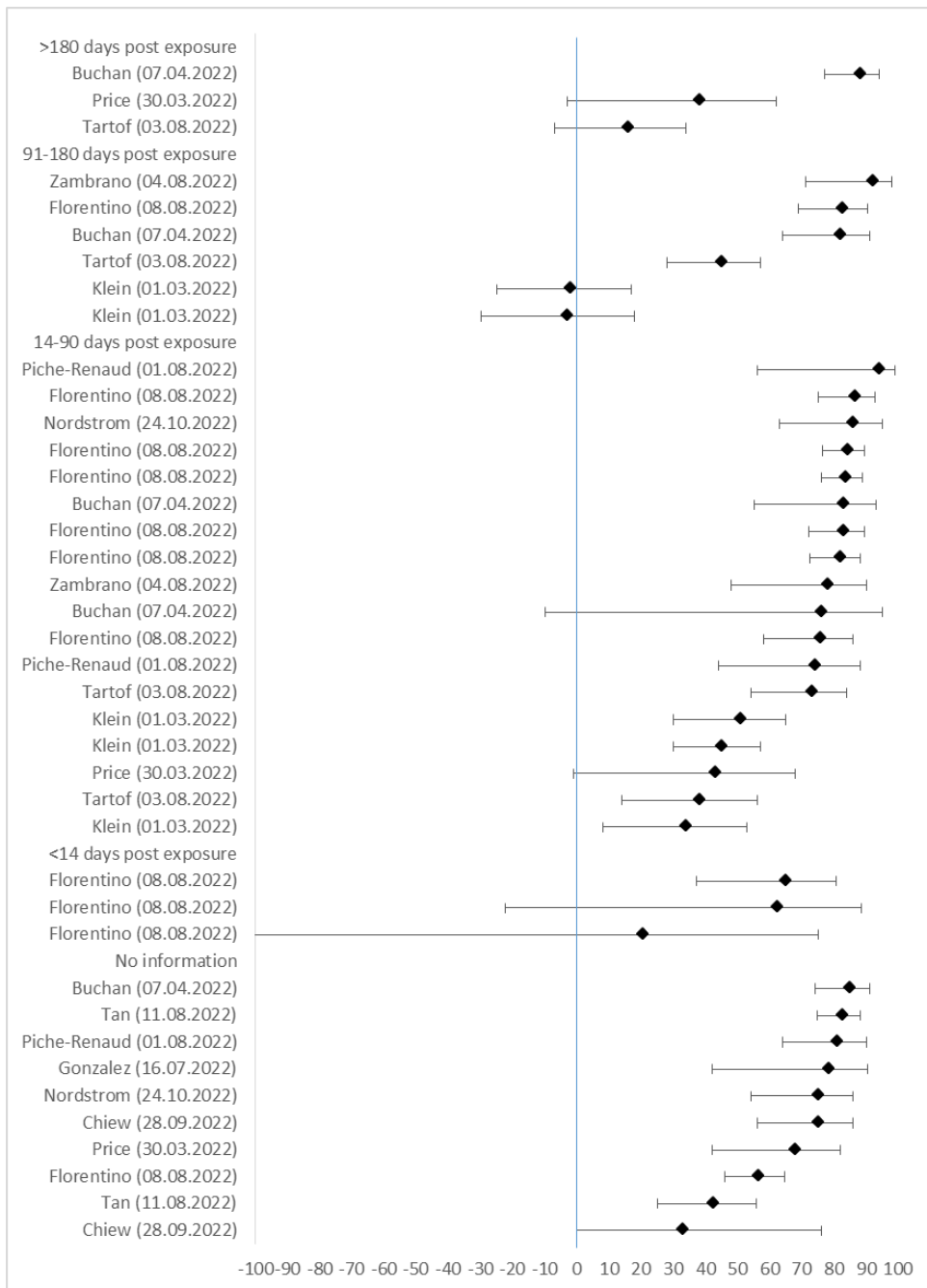
SF25: Severe disease: Children and adolescents (5-17 years), Exposure 3, Reference vaccinated (n=4)



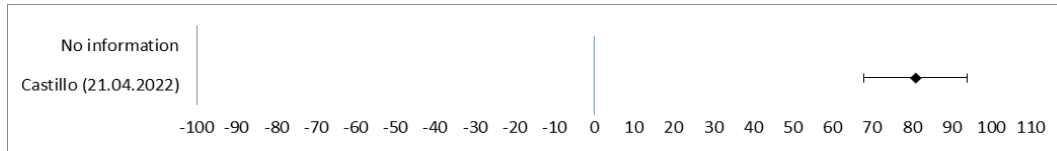
Author (Date)	VE in %	lower CI 95%	upper CI 95%
91-180 days post exposure			
Nordstrom (24.10.2022)	68,0	25,0	86,0
14-90 days post exposure			
Chiew (28.09.2022)	84,0	14,0	97,0
<14 days post exposure			
Chiew (28.09.2022)	96,0	87,0	99,0
No information			
Chiew (28.09.2022)	94,0	86,0	97,0
Tartof (03.08.2022)	87,0	72,0	94,0
Klein (01.03.2022)	81,0	59,0	91,0

SF26: Severe disease: Children and adolescents (5-17 years), Exposure 1-3, Reference unvaccinated (n=11)

Author (Date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Buchan (07.04.2022)	88,0	77,0	94,0
Price (30.03.2022)	38,0	-3,0	62,0
Tartof (03.08.2022)	16,0	-7,0	34,0
91-180 days post exposure			
Zambrano (04.08.2022)	92,0	71,0	98,0
Florentino (08.08.2022)	82,7	68,8	90,4
Buchan (07.04.2022)	82,0	64,0	91,0
Tartof (03.08.2022)	45,0	28,0	57,0
Klein (01.03.2022)	-2,0	-25,0	17,0
Klein (01.03.2022)	-3,0	-30,0	18,0
14-90 days post exposure			
Piche-Renaud (01.08.2022)	94,0	56,0	99,0
Florentino (08.08.2022)	86,4	75,2	92,6
Nordstrom (24.10.2022)	86,0	63,0	95,9
Florentino (08.08.2022)	84,2	76,3	89,5
Florentino (08.08.2022)	83,7	76,0	88,9
Buchan (07.04.2022)	83,0	55,0	93,0
Florentino (08.08.2022)	82,8	72,1	89,4
Florentino (08.08.2022)	82,0	72,6	88,2
Zambrano (04.08.2022)	78,0	48,0	90,0
Buchan (07.04.2022)	76,0	-10,0	95,0
Florentino (08.08.2022)	75,6	58,1	85,8
Piche-Renaud (01.08.2022)	74,0	44,0	88,0
Tartof (03.08.2022)	73,0	54,0	84,0
Klein (01.03.2022)	51,0	30,0	65,0
Klein (01.03.2022)	45,0	30,0	57,0
Price (30.03.2022)	43,0	-1,0	68,0
Tartof (03.08.2022)	38,0	14,0	56,0
Klein (01.03.2022)	34,0	8,0	53,0
<14 days post exposure			
Florentino (08.08.2022)	65,0	37,2	80,5
Florentino (08.08.2022)	62,4	-22,2	88,5
Florentino (08.08.2022)	20,6	-152,2	75,0
No information			
Buchan (07.04.2022)	85,0	74,0	91,0
Tan (11.08.2022)	82,7	74,8	88,2
Piche-Renaud (01.08.2022)	81,0	64,0	90,0
Gonzalez (16.07.2022)	78,2	42,0	90,3
Nordstrom (24.10.2022)	75,0	54,0	86,0
Chiew (28.09.2022)	75,0	56,0	86,0
Price (30.03.2022)	68,0	42,0	82,0
Florentino (08.08.2022)	56,3	45,9	64,6
Tan (11.08.2022)	42,3	24,9	55,7
Chiew (28.09.2022)	33,0	0,0	76,0

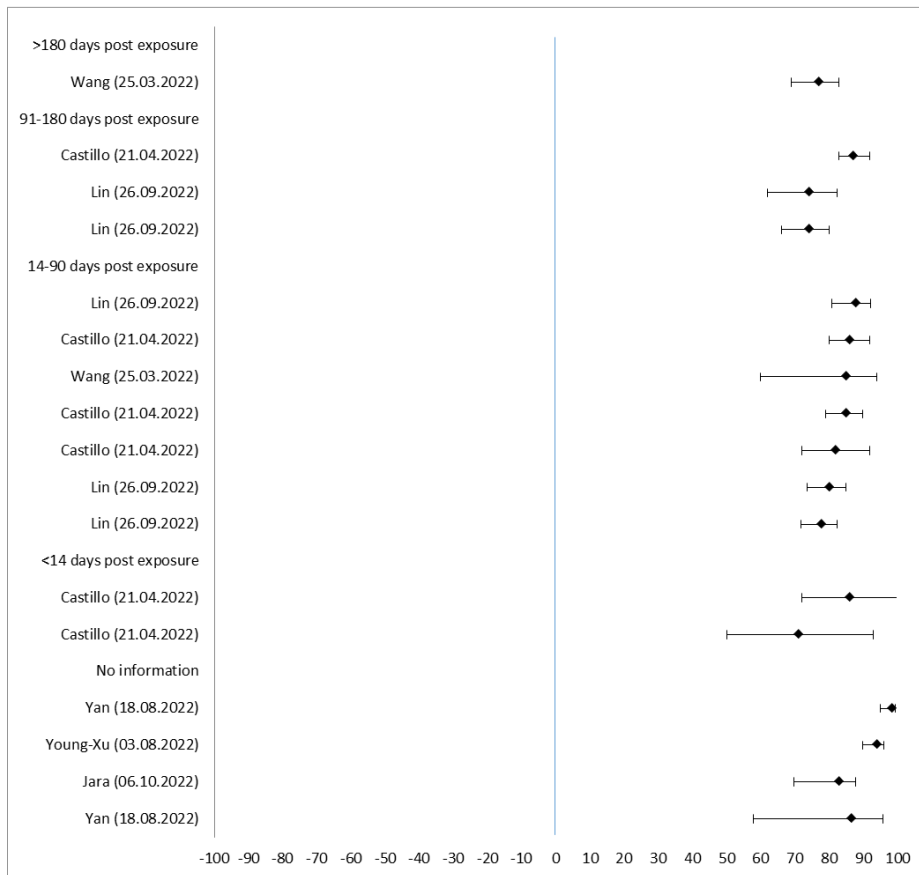


SF27: Death: General population (adults 18+ years), Exposure 3+, Reference unvaccinated (n=1)



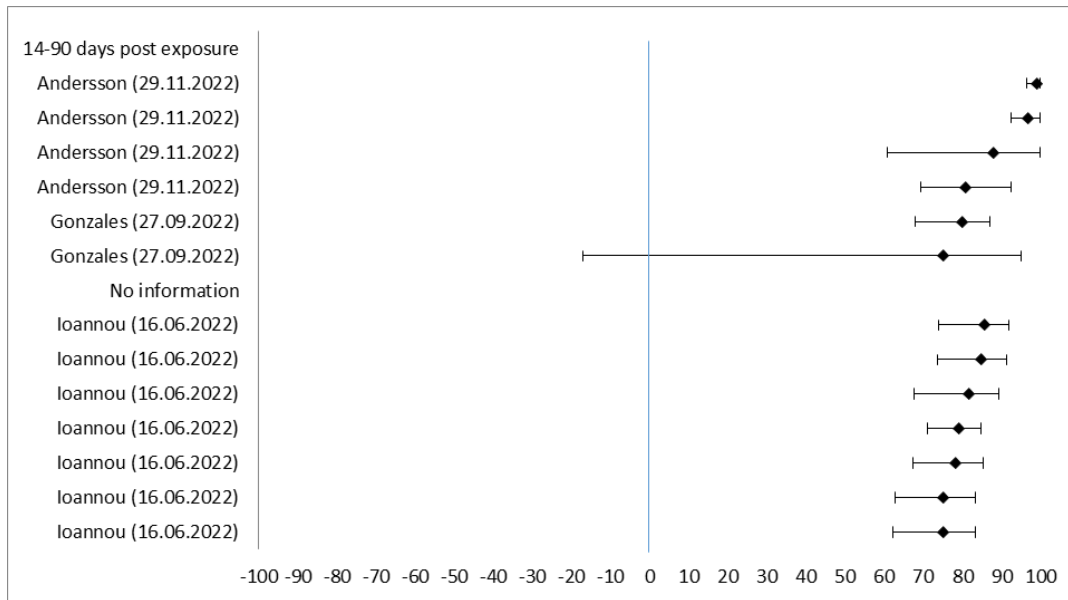
Author (Date)	VE in %	lower CI 95%	upper CI 95%
No information			
Castillo (21.04.2022)	81,0	68,0	94,0

SF28: Death: General population (adults 18+ years), Exposure 3, Reference unvaccinated (n=6)



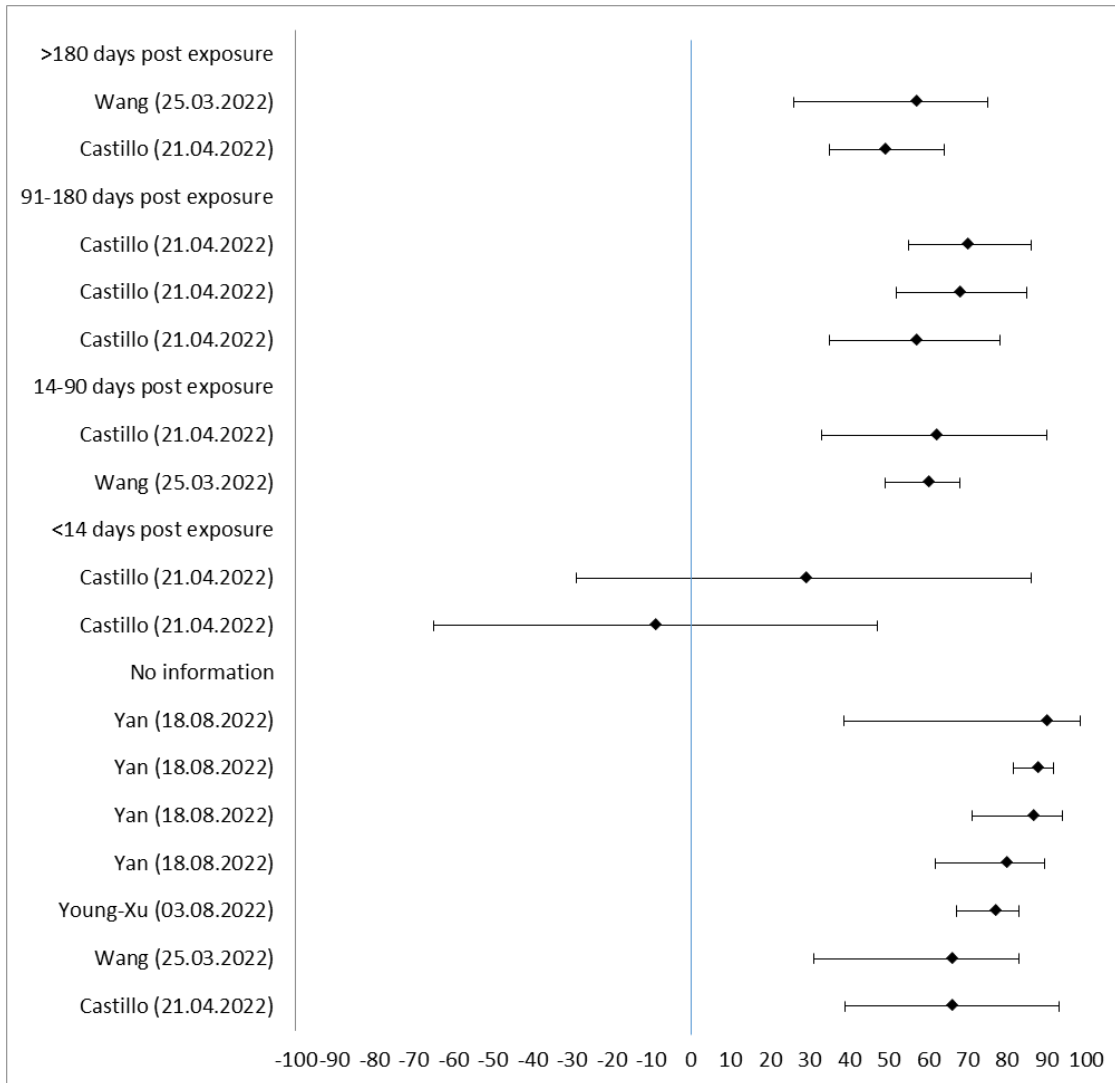
Author (Date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Wang (25.03.2022)	77,0	69,0	83,0
91-180 days post exposure			
Castillo (21.04.2022)	87,0	83,0	92,0
Lin (26.09.2022)	74,1	62,0	82,3
Lin (26.09.2022)	74,1	66,2	80,1
14-90 days post exposure			
Lin (26.09.2022)	87,7	80,9	92,1
Castillo (21.04.2022)	86,0	80,0	92,0
Wang (25.03.2022)	85,0	60,0	94,0
Castillo (21.04.2022)	85,0	79,0	90,0
Castillo (21.04.2022)	82,0	72,0	92,0
Lin (26.09.2022)	80,0	73,6	84,9
Lin (26.09.2022)	77,8	71,8	82,5
<14 days post exposure			
Castillo (21.04.2022)	86,0	72,0	100,0
Castillo (21.04.2022)	71,0	50,0	93,0
No information			
Yan (18.08.2022)	98,4	95,0	99,5
Young-Xu (03.08.2022)	94,0	90,0	96,0
Jara (06.10.2022)	83,0	69,7	87,7
Yan (18.08.2022)	86,6	57,9	95,7

SF29: Death: General population (adults 18+ years), Exposure 3, Reference less exposures (2 exposures) (n=3)



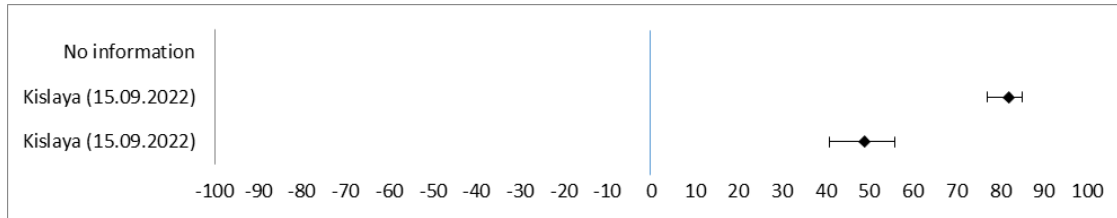
Author (date)	VE in %	Lower CI 95%	Upper CI 95%
14-90 days post exposure			
Andersson (29.11.2022)	99,0	96,6	100
Andersson (29.11.2022)	96,8	92,6	100
Andersson (29.11.2022)	87,8	60,7	100
Andersson (29.11.2022)	80,9	69,5	92,4
Gonzales (27.09.2022)	80,0	68,0	87,0
Gonzales (27.09.2022)	75,0	-17,0	95,0
No information			
Ioannou (16.06.2022)	85,5	73,9	92,0
Ioannou (16.06.2022)	84,8	73,7	91,2
Ioannou (16.06.2022)	81,6	67,8	89,4
Ioannou (16.06.2022)	79,1	71,2	84,9
Ioannou (16.06.2022)	78,1	67,5	85,3
Ioannou (16.06.2022)	75,2	62,9	83,4
Ioannou (16.06.2022)	75,0	62,3	83,4

SF30: Death: General population (adults 18+ years), Exposure 1-3, Reference unvaccinated (n=4)



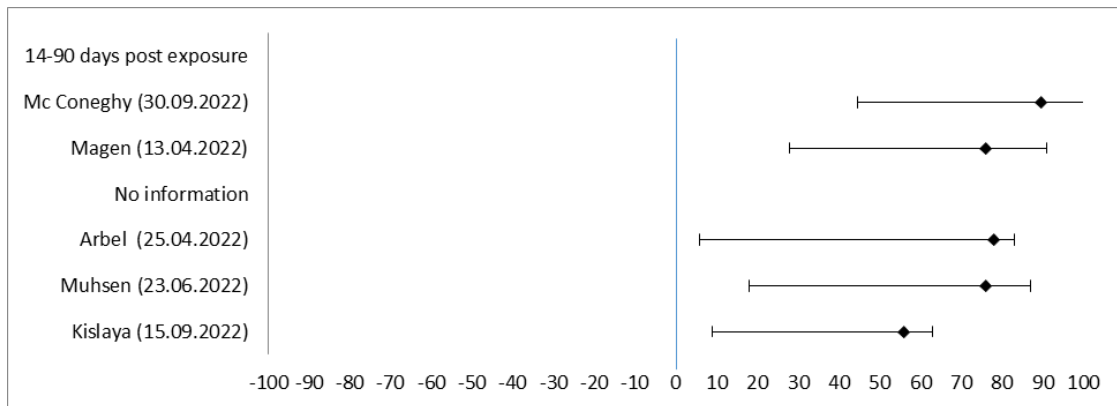
Author (Date)	VE in %	lower CI 95%	upper CI 95%
>180 days post exposure			
Wang (25.03.2022)	57,0	26,0	75,0
Castillo (21.04.2022)	49,0	35,0	64,0
91-180 days post exposure			
Castillo (21.04.2022)	70,0	55,0	86,0
Castillo (21.04.2022)	68,0	52,0	85,0
Castillo (21.04.2022)	57,0	35,0	78,0
14-90 days post exposure			
Castillo (21.04.2022)	62,0	33,0	90,0
Wang (25.03.2022)	60,0	49,0	68,0
<14 days post exposure			
Castillo (21.04.2022)	29,0	-29,0	86,0
Castillo (21.04.2022)	-9,0	-65,0	47,0
No information			
Yan (18.08.2022)	89,9	38,6	98,3
Yan (18.08.2022)	87,6	81,4	91,8
Yan (18.08.2022)	86,6	71,0	93,8
Yan (18.08.2022)	79,9	61,7	89,5
Young-Xu (03.08.2022)	77,0	67,0	83,0
Wang (25.03.2022)	66,0	31,0	83,0
Castillo (21.04.2022)	66,0	39,0	93,0

SF31: Death: Older adults (60+ years), Exposure 3+, Reference unvaccinated (n=1)



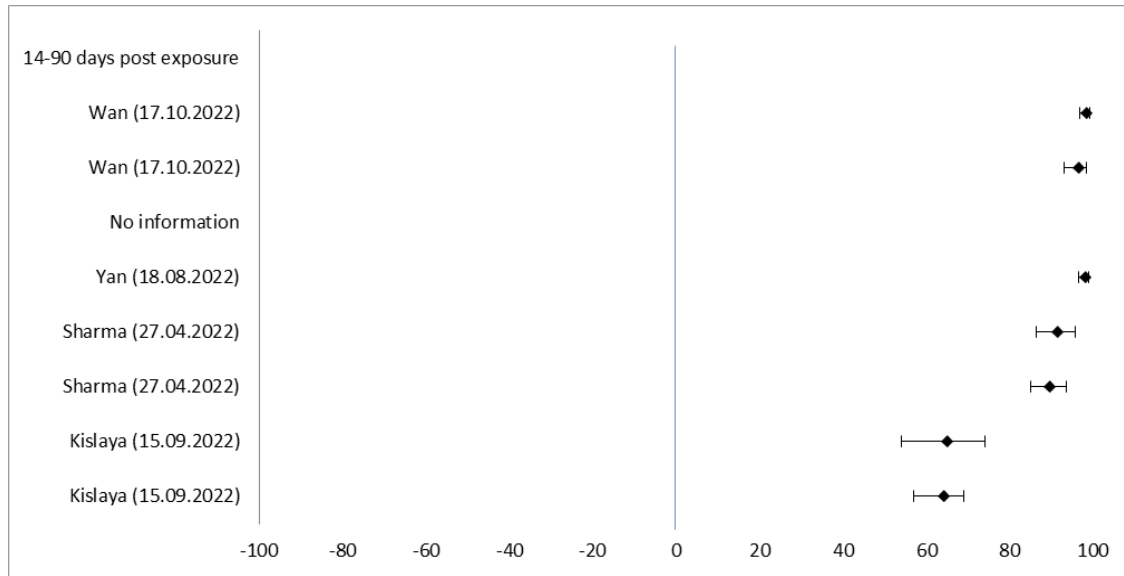
Author (Date)	VE in %	lower CI 95%	upper CI 95%
No information			
Kislaya (15.09.2022)	82,0	77,0	85,0
Kislaya (15.09.2022)	49,0	41,0	56,0

SF32: Death: Older adults (60+ years), Exposure 3+, Reference less exposures (3 exposures) (n=5)



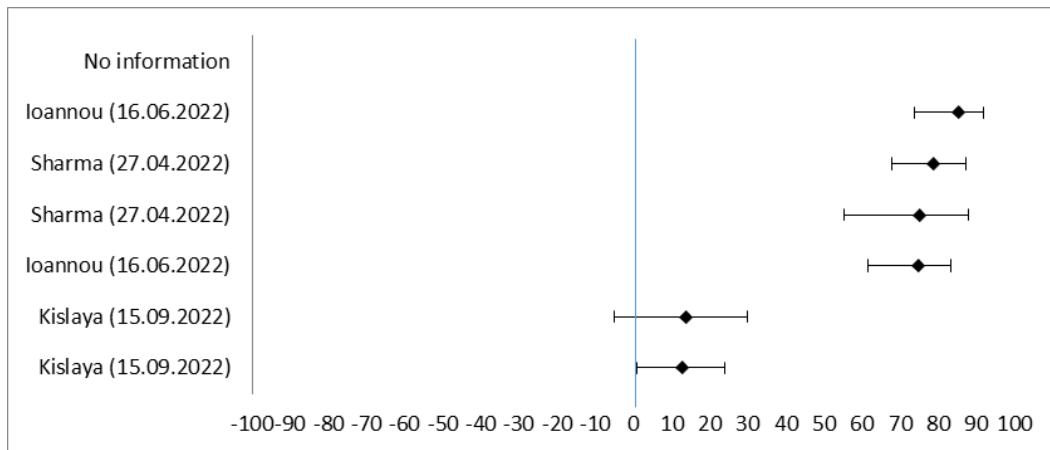
Author (date)	VE in %	lower CI 95%	upper CI 95%
14-90 days post exposure			
Mc Coneghy (30.09.2022)	89,6	45,0	100,0
Magen (13.04.2022)	76,0	48,0	91,0
No information			
Arbel (25.04.2022)	78,0	72,0	83,0
Muhsen (23.06.2022)	76,0	58,0	87,0
Kislaya (15.09.2022)	56,0	47,0	63,0

SF33: Death: Older adults (60+ years), Exposure 3, Reference unvaccinated (n=4)



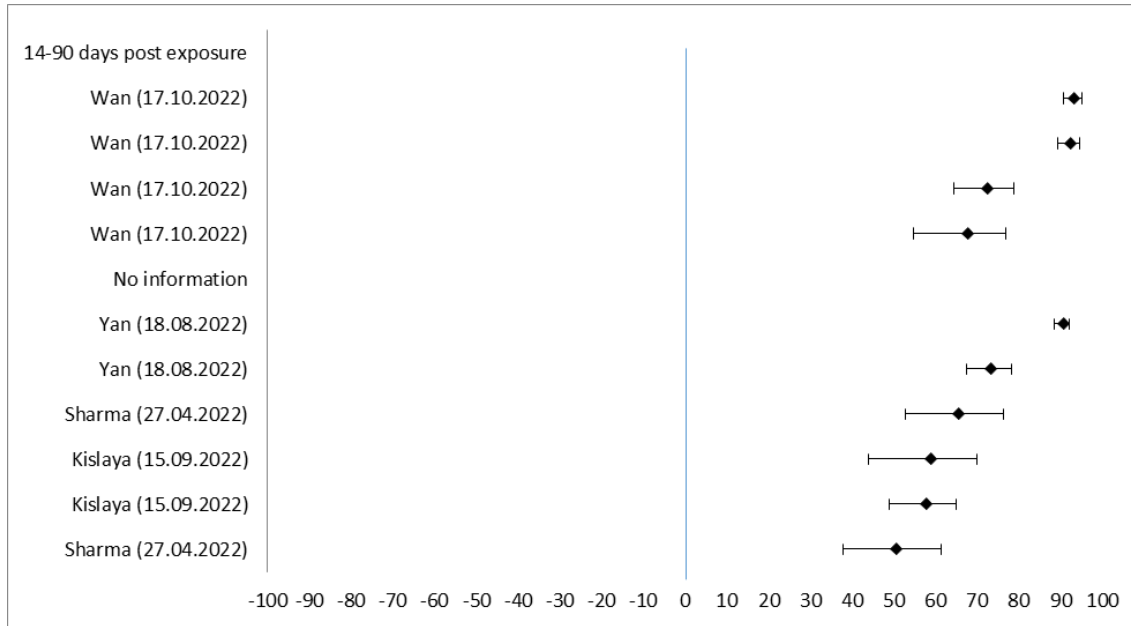
Author (Date)	VE in %	lower CI 95%	upper CI 95%
14-90 days post exposure			
Wan (17.10.2022)	98,4	96,6	99,2
Wan (17.10.2022)	96,4	92,9	98,2
No information			
Yan (18.08.2022)	98,0	96,5	98,9
Sharma (27.04.2022)	91,4	86,4	95,6
Sharma (27.04.2022)	89,6	85,0	93,6
Kislaya (15.09.2022)	65,0	54,0	74,0
Kislaya (15.09.2022)	64,0	57,0	69,0

SF34: Death: Older adults (60+ years), Exposure 3, Reference less exposures (2 exposures) (n=3)



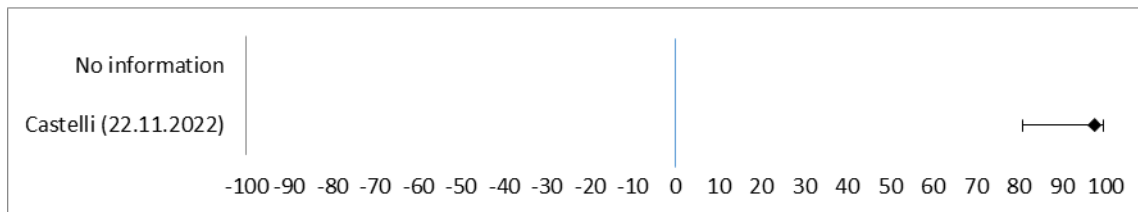
Author (date)	VE in %	lower CI 95%	upper CI 95%
No information			
Ioannou (16.06.2022)	85,5	73,7	92,0
Sharma (27.04.2022)	78,8	67,9	87,5
Sharma (27.04.2022)	75,0	55,4	88,0
Ioannou (16.06.2022)	74,8	61,8	83,3
Kislaya (15.09.2022)	14,0	-5,0	30,0
Kislaya (15.09.2022)	13,0	1,0	24,0

SF35: Death: Older adults (60+ years), Exposure 1-3, Reference unvaccinated (n=4)



Author (Date)	VE in %	lower CI 95%	upper CI 95%
14-90 days post exposure			
Wan (17.10.2022)	93,4	90,7	95,3
Wan (17.10.2022)	92,5	89,3	94,7
Wan (17.10.2022)	72,6	64,4	79,0
Wan (17.10.2022)	67,9	54,9	77,1
No information			
Yan (18.08.2022)	90,7	88,6	92,3
Yan (18.08.2022)	73,5	67,7	78,3
Sharma (27.04.2022)	65,6	52,8	76,3
Kislaya (15.09.2022)	59,0	44,0	70,0
Kislaya (15.09.2022)	58,0	49,0	65,0
Sharma (27.04.2022)	50,7	37,9	61,6

SF36: Death: Children and adolescents (5-17 years), Exposure 1-3, Reference unvaccinated (n=1)



Author (Date)	VE in %	lower CI 95%	upper CI 95%
No information			
Castelli (22.11.2022)	97,6	81,0	99,7

Literature

Included primary studies (n=90)

identified via:

International Vaccine Access Center, Johns Hopkins Bloomberg School of Public Health, World Health Organization, Coalition for Epidemic Preparedness Innovations. Results of COVID-19 Vaccine Effectiveness Studies: An Ongoing Systematic Review: Weekly Summary Tables. Updated December 1, 2022. Available from: URL: <https://view-hub.org/covid-19/effectiveness-studies>

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Supplement 2 Table S8: Excluded primary studies with reason for exclusion (n=48)

No.	Author (date)	Reason for exclusion	Category
1	Altarawneh (06.01.2022)	Date (inclusion from 12.02.2022, RKI Review)	Date
2	Buchan (28.01.2022)	Date (inclusion from 12.02.2022, RKI Review)	Date
3	Canetti (09.11.2022)	Editorial	Article Format
4	Carazo (27.06.2022)	HCW	Study population
5	Carlsen (01.06.2022)	Newborns/Infants	Study population
6	Cerqueira-Silva (01.07.2022)	Correspondence	Article Format
7	Cerquerira-Silva (18.07.2022)	Vaccine CoronaVac	Vaccine type
8	Cheng (11.08.2022)	Letter	Article format
9	Chin (27.05.2022)	Prison Inmates	Study population
10	Cohen (02.08.2022)	HCW	Study population
11	Collie (14.09.2022)	Editorial	Article format
12	Collie (29.12.2021)	Date (inclusion from 12.02.2022, RKI Review)	Date
13	Consonni (19.10.2022)	HCW	Study population
14	Ferdinands (11.02.2022)	Date (inclusion from 12.02.2022, RKI Review)	Date
15	Florentino (13.08.2022)	Vaccine CoronaVac	Vaccine type
16	Glatman-Freedman (31.03.2022)	not Omicron-specific	Study population
17	Gray (09.06.2022)	HCW	Study population
18	Guedalia (11.07.2022)	Pregnant women	Study population
19	Halasa (22.06.2022)	Infants	Study population
20	Hansen (23.12.2021)	Date (inclusion from 02/12/2022, RKI review)	Date
21	Hertz (15.08.2022)	HCW	Study population
22	Huang (09.09.2022)	Vaccine Ad5-nCoV, BBIBP-CorV, CoronaVac	Vaccine type
23	Jara (23.05.2022)	CoronaVac vaccine	Vaccine type
24	Jorgensen (08.11.2022)	Newborns/infants	Study population
25	Kim (29.08.2022)	HCW	Study population
26	Moghnieh (22.09.2022)	Airline employees	Study population
27	Natarajan (29.03.2022)	Report	Article format
28	Penayo (06/2022)	No access to full text	Article format
29	Powell (21.03.2022)	Comment	Article format
30	Ranzani (16.08.2022)	Vaccine CoronaVac	Vaccine type
31	Regev-Yochay (15.02.2022)	HCW	Study population
32	Richterman (06.06.2022)	HCW	Study population
33	Risk (08.10.2022)	No access to full text	Article format

34	Schrag (26.09.2022)	Pregnant	Study population
35	Simwanza (08.06.2022)	Prison inmates	Study population
36	Spensley (26.01.2022)	Date (inclusion from 12.02.2022, RKI Review).	Date
37	Stirrup (09.08.2022)	HCW	Study population
38	Suah (02.05.2022)	Letter	Article Format
39	Tan (13.09.2022)	Letter	Article format
40	Tartof (25.10.2022)	Correspondence	Article format
41	Tenforde (25.03.2022)	Report	Article format
42	Thompson (21.01.2022)	Date (Inclusion from 12.02.2022, RKI Review)	Date
43	UKHSA (03.11.2022)	Report	Article format
44	UKHSA (14.01.2022)	Report	Article format
45	Wan (17.08.2022)	Letter	Article format
46	Willet (26.01.2022)	Date (inclusion from 12.02.2022, RKI Review)	Date
47	Yoon (06.04.2022)	HCW	Study population
48	Zerbo (18.10.2022)	Newborns/infants	Study population

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