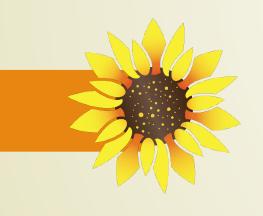
COVID-19 Vaccine Adverse Events

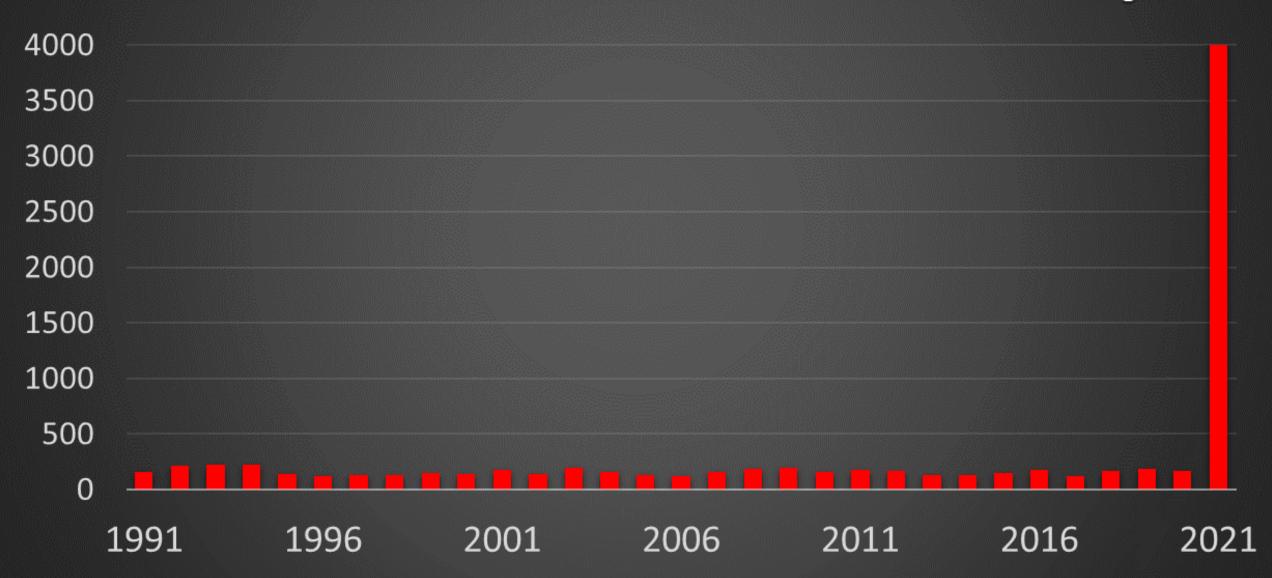
Josh Guetzkow, PhD

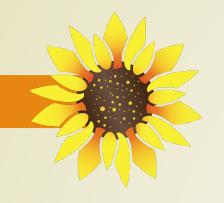
joshg99@gmail.com



Deaths Reported to VAERS, 1991-2021

COVID Vaccine Deaths So Far in 2021 Are 50% of All Deaths & 30x Annual Average

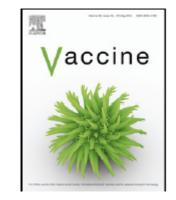




What is VAERS for?

- Goal is <u>"signal detection"</u>
 - Not designed to detect if vaccine caused adverse event
 - Identify "unusual or unexpected patterns of reporting"
- Once signal detected, follow-up study needed
- Passive relies on people to voluntarily report

Safety monitoring in the Vaccine Adverse Event Reporting System (VAERS)



Tom T. Shimabukuro^{a,*}, Michael Nguyen^b, David Martin^b, Frank DeStefano^a

6. How do CDC and FDA analyze VAERS data?

The basic analyses of VAERS data are intended to detect concerning patterns or unusual and unexpected changes in adverse event reporting that might indicate a safety problem in a specific vaccine or vaccine type. CDC and FDA physicians, epidemiologists and statisticians assess numbers of reports, types of reports based on serious and non-serious status, the most common adverse events, current versus historical data, and reporting trends over time, such as comparisons of influenza vaccine reports across multiple consecutive influenza seasons. Analysis also includes evaluation of reporting rates of adverse events in the context of vaccine doses distributed for use in the U.S. marketplace. Vaccine doses

6.2. Disproportionality analysis

	Adverse event of interest	All other adverse events
Vaccine of interest	V _i AE _i	$V_i A E_X$
Comparator vaccine(s)	V _x AE _i	$V_X A E_X$

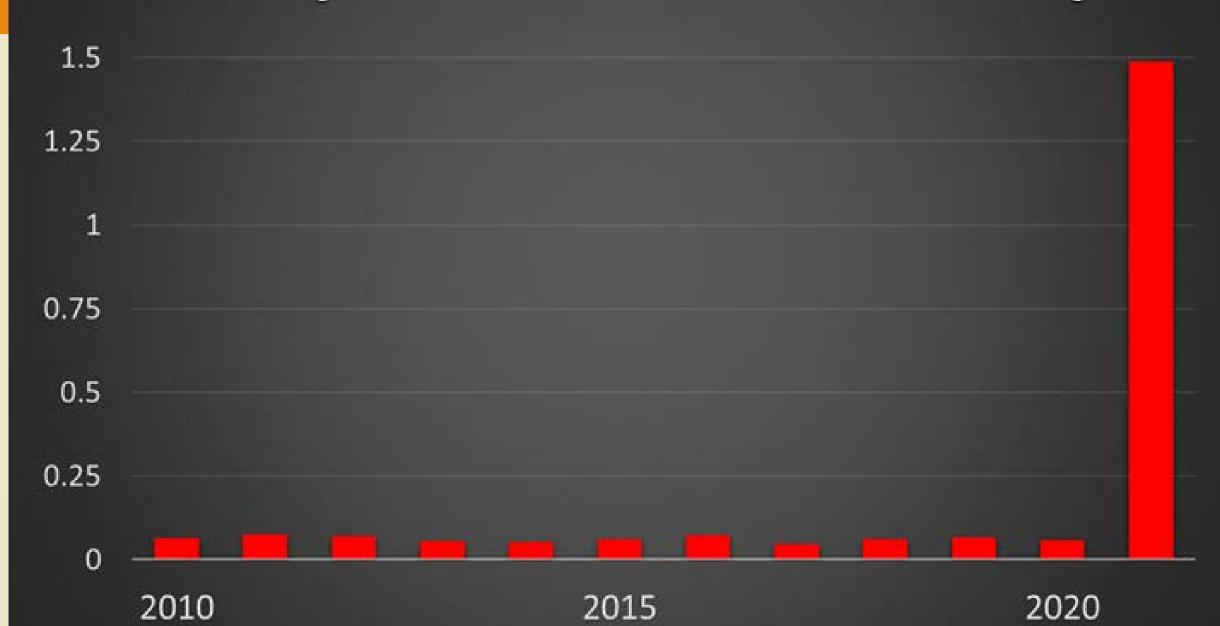
Proportional reporting ratio =
$$\frac{V_i A E_i / (V_i A E_i + V_i A E_x)}{V_x A E_i / (V_x A E_i + V_x A E_x)}$$

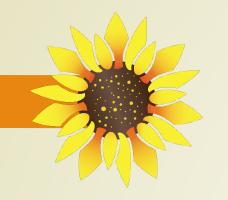
^a Immunization Safety Office, Division of Health care Quality Promotion, National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, GA, United States

b Office of Biostatistics and Epidemiology, Center for Biologics Evaluation and Research, Food and Drug Administration, Silver Spring, MD, United States

Deaths Reported to VAERS per 100,000 Vaccine Doses

Annual Average 2010-2020: 0.06 Covid Vaccines: 1.5 =24x Annual Average





Stimulated Reporting?

Comparing COVID to Flu Vaccine AE's

- What if people report more due to increased attention and fear of vaccine?
- Even so, the pattern of reports for different events should be the same as for other vaccines
 - Example: compare percentage of serious AE's
 - ► H1N1 in 2009 vs. regular flu vaccines
 - Compare: Flu vaccine reports (2016-2019) to COVID

Adverse events following influenza A (H1N1) 2009 monovalent vaccines reported to the Vaccine Adverse Event Reporting System, United States, October 1, 2009–January 31, 2010th

Claudia Vellozzi^{a,*}, Karen R. Broder^a, Penina Haber^a, Alice Guh^a, Michael Nguyen^b, Maria Cano^a, Paige Lewis^a, Michael M. McNeil^a, Marthe Bryant^b, James Singleton^c, David Martin^b, Frank DeStefano^a

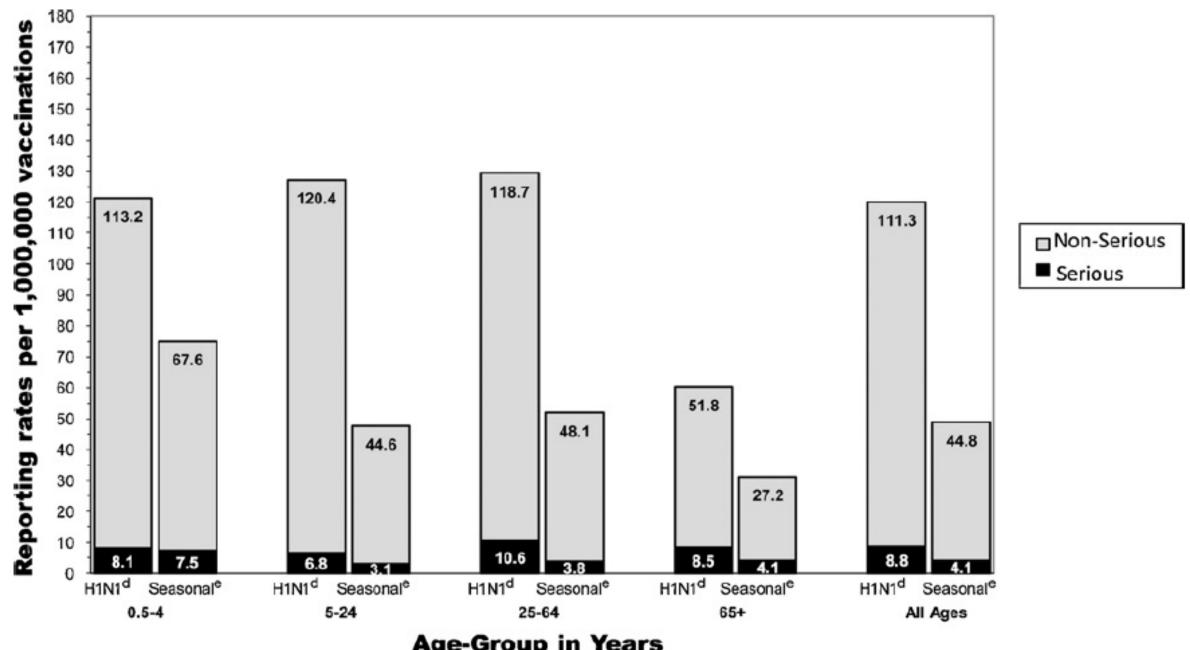
Vaccine 28 (2010) 7248–7255



^a Immunization Safety Office, Division of Health Care Quality Promotion, National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention, United States

^b Office of Biostatistics and Epidemiology, Center for Biologics Evaluation and Research, Food and Drug Administration, Rockville, MD, United States

^c Immunization Services Division, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, United States



Age-Group in Years

Table 2
Proportion of serious and Guillain-Barré Syndrome reports received by the Vaccine Adverse Event Reporting System (VAERS) following receipt of 2009-H1N1 and seasonal influenza vaccines, by age group, July 1-March 15 for each seasona.

Influenza Season	Age 6 mo-4	y		Age 5–24 y				
	All reports N	Serious ^b n (%)	GBS ^c n (%)	All reports	Serious ^b n (%)	GBS ^c n (%)		
2009-H1N1	1358	91 (6.7)	4 (0.3)	3415	181 (5.3)	21 (0.6)		
2009-2010	658	67 (10.2)*	4 (0.6)	1061	59 (5.6)	11 (1.0)		
2008-2009	661	57 (8.6)	0	848	63 (7.4)	8 (0.9)		
2007-2008	623	60 (9.6)	0	569	36 (6.3)	3 (0.5)		
2006-2007	444	44 (9.9)"	3 (0.7)	439	38 (8.7)	4(0.9)		
2005-2006	392	38 (9.7)	1 (0.3)	317	28 (8.8)	1 (0.3)		

	Age 25–64 y			$Age \ge 65 \ y$			All Ages			
	All reports N	Serious ^b n (%)	GBS ^c n (%)	All reports N	Serious ^b n (%)	GBS ^c n (%)	All reports N	Serious ^b n (%)	GBS ^c n (%)	
2009-H1N1	4599	375 (8.2)	70 (1.5)	538	76 (14.1)	27 (5.0)	9910	723 (7.30)	122 (1.23)	
2009-2010	2947	208 (7.1)	62 (2.1)	829	107 (12.9)	36 (4.3)	5495	441 (8.03)	113 (2.06)*	
2008-2009	2125	133 (6.3)	20 (0.9)	652	67 (10.3)	7 (1.1)	4286	320 (7.47)	35 (0.82)*	
2007-2008	1513	116 (7.7)	23 (1.5)	589	84 (14.3)	15 (2.6)	3294	296 (8.99)"	41 (1.24)	
2006-2007	1191	92 (7.7)	22 (1.9)	435	68 (15.6)	12 (2.8)	2509	242 (9.65)*	41 (1.63)	
2005-2006	1265	106 (8.4)	19 (1.5)	518	54 (10.4)	9 (1.7)	2492	226 (9.07)*	30 (1.20)	

Adverse Events Reported to VAERS per Vaccine Dose: COVID-19 vs. Flu Vaccines

	Per 100,0	000 Doses	Relative
	COVID-19	Flu	Difference
Serious	9.1	0.3	30 x
Not Serious	109	5.8	19 x
Death	1.5	0.02	82x
Disability	1.5	0.08	19 x
Emergency Room	16	1.1	14x
Hospitalized	6.6	0.22	30 x
Life Threatening	1.9	0.06	31 x
Blood Clot Related Events	0.3	0.04	7 x
Myocardial Infarction	0.7	0.06	12 x

Note: Adverse events and doses for flu vaccines based on 2016, 2017 & 2018 flu seasons.

COVID-19 vs. Flu Vaccinations for <u>Ages 10-17</u>: All Adverse Events, Serious Adverse Events & Deaths Reported to VAERS per 100,000 Vaccine Doses

Vaccine Type/Year	Vaccine Doses	All Reports N	Per 100k	COVID-Flu Ratio	Serious N	Per 100k	COVID-Flu Ratio	Deaths N	Per 100k	COVID-Flu Ratio
COVID-19	13870224	12868	92.8		695	5.01		13	0.094	
Flu 2015-16	15493673	439	2.8	33*	25	0.16	31*	0	0.000	n/a
Flu 2016-17	16241681	477	2.9	32*	25	0.15	33*	0	0.000	n/a
Flu 2017-18	16056653	533	3.3	28*	19	0.12	42*	0	0.000	n/a
Flu 2018-19	17590485	588	3.3	28*	1	0.01	881*	0	0.000	n/a
Flu 2019-20	18020022	560	3.1	30*	17	0.09	53*	1	0.006	17*
Total Flu	83402513	2158	2.6	36*	62	0.07	67*	1	0.001	78*

COVID-19 vs. Flu Vaccinations for <u>Ages 18-49</u>: All Adverse Events, Serious Adverse Events & Deaths Reported to VAERS per 100,000 Vaccine Doses

Vaccine Type/Year	Vaccine Doses	All Reports N	Per 100k	COVID-Flu Ratio	Serious N	Per 100k	COVID-Flu Ratio	Deaths N	Per 100k	COVID-Flu Ratio
COVID-19	129739047	182533	140.7		7846	6.05		355	0.274	
Flu 2015-16	44774285	2368	5.3	27*	105	0.23	26*	0	0.000	n/a
Flu 2016-17	46142609	2302	5.0	28*	110	0.24	25*	2	0.004	63*
Flu 2017-18	37062608	2238	6.0	23*	103	0.28	22*	3	0.008	34*
Flu 2018-19	48184566	2284	4.7	30*	109	0.23	27*	2	0.004	66*
Flu 2019-20	52938470	1903	3.6	39*	82	0.15	39*	3	0.006	48*
Total Flu	229102538	8727	3.8	37*	404	0.18	34*	10	0.004	63*

COVID-19 vs. Flu Vaccinations for <u>Ages 50-64</u>: All Adverse Events, Serious Adverse Events & Deaths Reported to VAERS per 100,000 Vaccine Doses

Vaccine Type/Year	Vaccine Doses	All Reports N	Per 100k	COVID-Flu Ratio	Serious N	Per 100k	COVID-Flu Ratio	Deaths N	Per 100k	COVID-Flu Ratio
COVID-19	80859165	98759	122.1		7001	8.66		754	0.9325	
Flu 2015-16	39940788	1813	4.5	27*	78	0.20	44*	0	0.0000	n/a
Flu 2016-17	41356444	1851	4.5	27*	84	0.20	43*	6	0.0145	64*
Flu 2017-18	37855083	1840	4.9	25*	79	0.21	41*	0	0.0000	n/a
Flu 2018-19	43000598	1905	4.4	28*	98	0.23	38*	2	0.0047	200*
Flu 2019-20	43760237	1530	3.5	35*	71	0.16	53*	2	0.0046	204*
Total Flu	205913150	7126	3.5	35*	332	0.16	54*	10	0.0049	192*

COVID-19 vs. Flu Vaccinations for <u>Ages 64 and Older</u>: All Adverse Events, Serious Adverse Events & Deaths Reported to VAERS per 100,000 Vaccine Doses

Vaccine Type/Year	Vaccine Doses	All Reports N	Per 100k	COVID-Flu Ratio	Serious N	Per 100k	COVID-Flu Ratio	Deaths N	Per 100k	COVID-Flu Ratio
COVID-19	84868247	84384	99.4		13788	16.25		3539	4.170	
Flu 2015-16	30363150	2483	8.2	12*	143	0.47	34*	12	0.04	106*
Flu 2016-17	32072345	2826	8.8	11*	128	0.40	41*	10	0.031	134*
Flu 2017-18	30284066	3201	10.6	9*	139	0.46	35*	7	0.023	180*
Flu 2018-19	35648164	3053	8.6	12*	138	0.39	42*	8	0.022	186*
Flu 2019-20	37803346	2633	7.0	14*	127	0.34	48*	9	0.024	175*
Total Flu	166171071	11713	7.0	14*	532	0.32	51*	34	0.020	204*

COVID-19 vs. Flu Vaccinations for <u>All Age Groups (10+)</u>: All Adverse Events, Serious Adverse Events & Deaths Reported to VAERS per 100,000 Vaccine Doses

Vaccine Type/Year	Vaccine Doses	All Reports N	Per 100k	COVID-Flu Ratio	Serious N	Per 100k	COVID-Flu Ratio	Deaths N	Per 100k	COVID-Flu Ratio
COVID-19	309336683	378544	122.4		29330	9.48		4661	1.507	
Flu 2015-16	130571896	7103	5.4	22*	351	0.27	35*	12	0.01	164*
Flu 2016-17	135813080	7456	5.5	22*	347	0.26	37*	18	0.013	114*
Flu 2017-18	121258410	7812	6.4	19*	340	0.28	34*	10	0.008	183*
Flu 2018-19	144423813	7827	5.4	23*	346	0.24	40*	12	0.008	181*
Flu 2019-20	152522074	6626	4.3	28*	297	0.19	49*	15	0.010	153*
Total Flu	684589273	29721	4.3	28*	1330	0.19	49*	55	0.008	188*

COVID-19 vs. Flu Vaccines: Adverse Events Reported per 100,000 Vaccine Doses

	Al	LL EVE	NTS	SERI	OUS EV	'ENTS	_	S	
			COVID:Flu			COVID:FI			COVID:Flu
Ages	COVID-19	Flu	Ratio	COVID-19	Flu	u Ratio	COVID-19	Flu	Ratio
Age 10-17	93	2.6	36x	5.01	0.07	67x	0.09	0.001	78x
Age 18-49	141	3.8	37x	6.05	0.18	34x	0.27	0.004	63x
Age 50-64	122	3.5	35x	8.66	0.16	54x	0.93	0.005	192 x
Age 65+	99	7.0	14x	16.25	0.32	51 x	4.17	0.020	204 x
All Ages (10+)	122	4.3	28x	9.48	0.19	49x	1.51	0.008	188x

Note: Flu reporting rates represent the total reports to VAERS across the 2015-2019 flu seasons for each age group. Covid-19 reporting rates include all reports to VAERS for COVID-19 vaccines for each age group. Annual vaccine doses estimated using data from the CDC and the US Census Bureau. The COVID-Flu ratio is the ratio of COVID-19 reporting rate to the flu reporting rate for the 2015-2019 flu seasons. COVID-19 reports include all reports to VAERS from non-foreign sources as of June 25, 2021.

Proportion of Serious AEs and Deaths Reported for COVID-19 and Flu Vaccines

					Age 10-1	L7 Year	rs		Age 18-49 Years							
			All Re	port S	Serious		Deatl	15	All Rep	ort S	erious	1	Deaths	;		
			ı	N	N	%	N	%	N		N	%	N	%		
	C	OVID-19	128	368	695	5.4	13	0.1	1825	33	7846	4.3	355	0.19		
	Fl	u 2015-16	43	39	25	5.7	0	0.0	236	8	105	4.4	0	0.00*		
	Flu	u 2016-17	47	77	25	5.2	0	0.0	230	2	110	4.8	2	0.09		
	Flu	u 2017-18	53	33	19	3.6	0	0.0	223	8	103	4.6	3	0.13		
	Flu	u 2018-19	58	35	1	0.2*	0	0.0	228	4	109	4.8	2	0.09		
	Flu	u 2019-20	56	50	17	3.0*	1	0.2	190	3	82	4.3	3	0.16		
		Age 50-6	64 Yea	ars			ļ	Age 65	+ Yea	rs				All Age	s (10	+)
A	All Report	t Serious		Death	ıs	All Re	port	Seriou	S	Deatl	hs	All	Repor	t Serious	}	Dea
	N	N	%	N	%		V	N	%	N	%		N	N	%	ſ
COVID-19	98759	7001	7.1	754	0.8	843	384	13788	16.3	3539	9 4.2	3	78544	29330	7.7	46
Flu 2015-16	1813	78	4.3*	0	0.0*	24	83	143	5.8*	12	0.5*		7103	351	4.9*	1
Flu 2016-17	1851	84	4.5*	6	0.3*	28	26	128	4.5*	10	0.4*		7456	347	4.7*	1
Flu 2017-18	1840	79	4.3*	0	0.0*	32	01	139	4.3*	7	0.2*		7812	340	4.4*	1
Flu 2018-19	1905	98	5.1*	2	0.1*	30	53	138	4.5*	8	0.3*		7827	346	4.4*	1

2633

127

4.8*

0.3*

6626

Flu 2019-20

1530

4.6*

71

0.1*

Deaths

N

4661

12

18

10

12

15

4.5*

297

%

0.2*

0.2*

0.1*

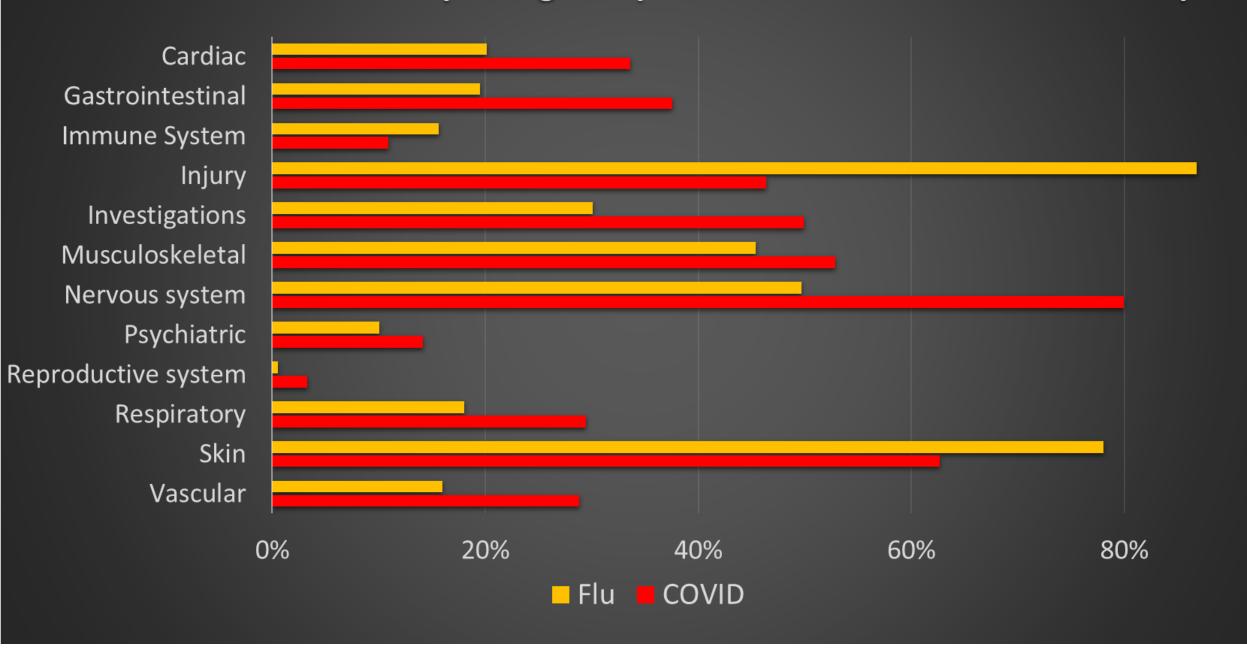
0.2*

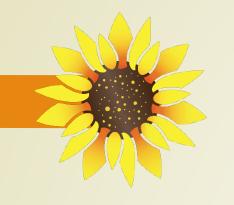
COVID-19 vs. Flu Vaccines: Serious Adverse Events and Deaths as Percentage of All Reports

	Repor	ts (N)	SERIC	OUS EV	/ENTS	DEATHS			
			Percent		_COVID:Flu	Perce	nt	COVID:Flu	
Ages	COVID-19	Flu	COVID-19	Flu	Ratio	COVID-19	Flu	Ratio	
Age 10-17	12,868	2,158	5.4	2.9	1.9x	0.10	0.046	2.2x	
Age 18-49	182,533	8,727	4.3	4.6	0.9x	0.19	0.11	1.7 x	
Age 50-64	98,759	7126	7.1	4.7	1.5 x	0.76	0.14	5.4x	
Age 65+	84,384	11,713	16.3	4.5	3.6x	4.19	0.29	14.4x	
All Ages	378,544	29,721	7.7	4.5	1.7 x	1.23	0.19	6.5x	

Note: Flu reporting rates represent the total reports to VAERS across the 2015-2019 flu seasons for each age group. Covid-19 reporting rates include all reports to VAERS for COVID-19 vaccines for each age group. The COVID-Flu ratio is the ratio of COVID-19 reporting rate to the flu reporting rate for the 2015-2019 flu seasons. COVID-19 reports include all reports to VAERS from non-foreign sources as of June 25.

COVID vs. Flu Vaccine Reporting Comparison for Selected Reaction Groups

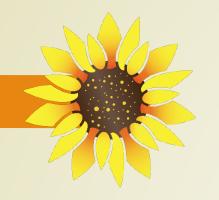




Adverse Event Underreporting: Pharmaceutical Drugs

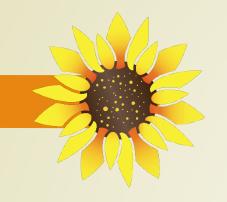
Meta-analysis: average underreporting rate 94% (80% for serious AE's)

Former FDA commissioner cites study showing
 1% of serious AE's reported



Adverse Event Underreporting: Vaccines

- HMO grant report: less than 1% of vaccine adverse events reported
- Study: Vaccine AE reporting 30x higher after partially automated system
- CDC: Underreporting for anaphylaxis and Guillain-Barré Syndrome (GBS)
 - Anaphylaxis: 13-25% of events reported (76% for H1N1)
 - GBS: 12-64% of events reported



COVID-19 Vaccine Underreporting

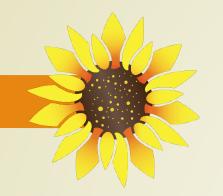
- Anaphylaxis: Life-threatening allergic reaction
- JAMA Mass General Employees: 2.5 per 10,000
- **CDC** estimate based on VAERS: .02 .05 per 10,000
- Underreporting Rate for Anaphylaxis: 2% to 0.8%
- True Number of Cases of Anaphylaxis: 50x to 125x



Adverse Events Reported to VAERS

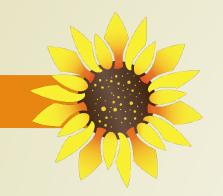
	<u>Total</u>	<u>x50</u>	<u>x125</u>
Total Cases	384,270	19,213,500	48,033,750
Total Events	1,667,140	83,357,000	208,392,500
Serious AE's	29,583	1,479,150	3,697,875
Hospitalization	21,440	1,072,000	2,680,000
Life Threatening	6,299	314,950	787,375
Permanent Disabil	ity 4,996	249,800	624,500
Deaths	4,812	240,600	601,500

Note: Includes reports from U.S. state & territories and unknown locations only.



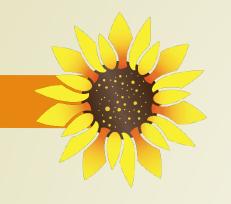
History of Harms Caused by Approved Vaccines

- **■1955** The Cutter Incident
 - -120,000 polio vaccine doses with live polio
- 1976 Swine Flu vaccination stopped after 25 reported deaths and 362 cases of Guillain-Barré syndrome
- ■1987 <u>Canada withdrew Trivirix MMR vaccine</u> due to association with aseptic meningitis



History of Harms Caused by Approved Vaccines

- 1998 <u>Rotavirus vaccine</u> <u>suspended</u> after 15 cases of intussusception were reported
- 2009 "swine flu" vaccine withdrawn due to narcolepsy
 - At least 800 children; UK payed out \$60 USD
- ■2015 Denguevax <u>higher risk of severe infection</u>
 - Philippine DOJ filed charges for "reckless imprudence resulting in homicide" <u>alleging knowledge of risks</u>



Blood Clot Related Events after COVID Vaccines

- Reports of "rare" type of blood clot after Astrazeneca and J&J vaccine
- TTS & TTP: blood clots with low platelets
- 3 countries suspended Astrazeneca vaccine
- US: Suspended J&J vaccine after 6 reports

Thrombotic Thrombocytopenic Purpura (TTP) Events Reported Following COVID-19 Vaccinations

	US VAERS		EU EUDRAVIGILANCE			UK YEL	LOW CARD	
Pfizer	Moderna	J&J	Pfizer	Moderna	Astrazeneca	J&J	Pfizer	Astrazeneca
10	5	2	9	0	5	2	5	1

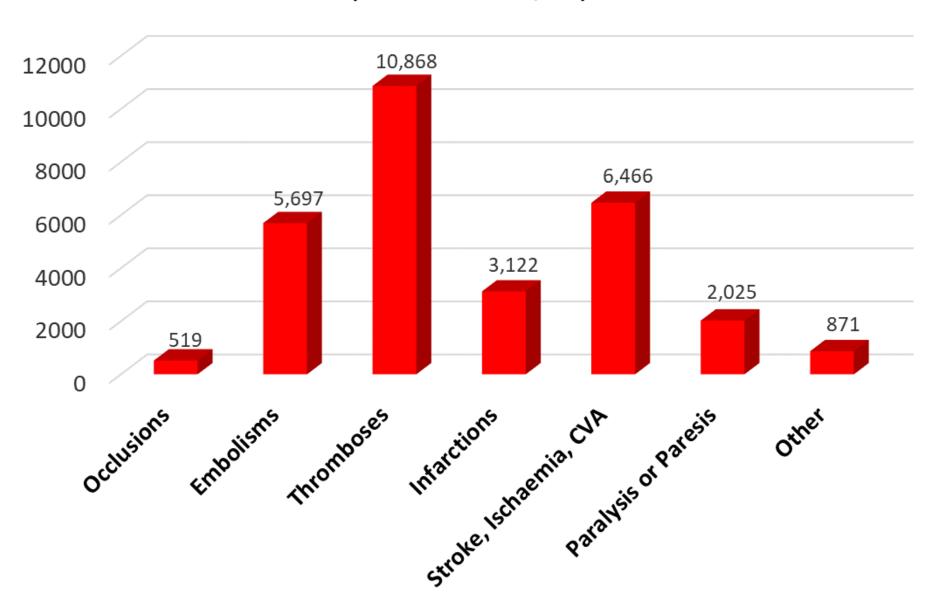
Embolic and Thrombotic Related Adverse Events Reported Following COVID-19 Vaccinations by Vaccine and Reporting System as of May 8, 2021

US VAERS			EU EUDRAVIGILANCE				UK YELL	OW CARD	
Туре	Pfizer	Moderna	J&J	Pfizer	Moderna	Astrazeneca	J&J	Pfizer	Astrazeneca
Occlusions	71	49	57	104	38	118	19	14	49
Embolisms	325	361	277	1,137	292	1,745	156	234	1,154
Thromboses	759	502	886	1,830	379	3,824	404	301	1,965
Infarctions	351	310	120	785	257	707	78	144	369
Stroke, Ischaemia, CVA	578	613	233	1,519	489	1,451	160	312	1,099
Paralysis or Paresis	182	194	95	503	164	468	54	93	268
Other	155	129	192	85	33	141	67	14	54
TOTAL	2,421	2,158	1,860	5,963	1,652	8,454	938	1,112	4,958

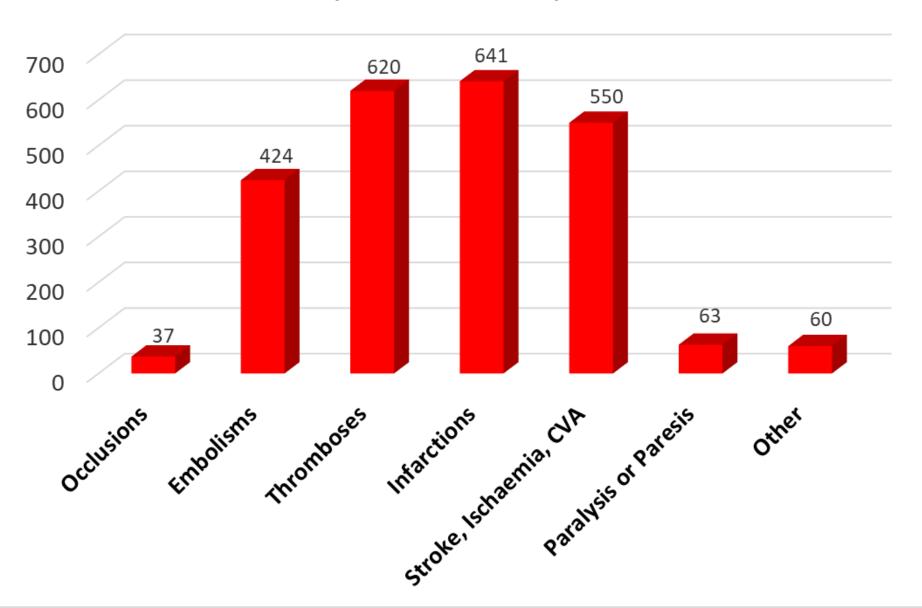
Total Events: 29,568

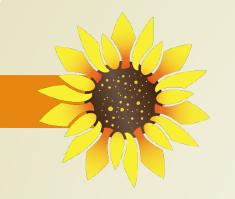
Total Deaths: 2,395

Embolic & Thrombotic Related Adverse Events Reported Following COVID-19 Vaccinations in the US, EU and UK (Total Events = 29,568)



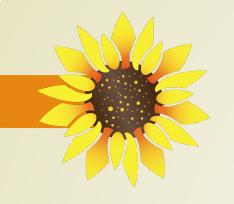
Deaths Associated with Embolic & Thrombotic Adverse Events Following COVID-19 Vaccinations in the US, EU and UK (Total Deaths = 2,395)





Most Serious Clotting Events Reported (US, EU and UK Reports Combined)

EVENT CLASSIFICATION	EVENTS	DEATHS
Myocardial infarction (heart attack)	2108	545
Pulmonary embolism	4856	388
Cerebrovascular accident	3792	364
Thrombosis	3813	194
Venous thrombosis (limb and general)	326	105
Ischaemic stroke	764	65
Deep vein thrombosis	3415	50
Cerebral venous sinus thrombosis	439	46
Cerebral infarction	463	39
Cerebral thrombosis	196	36
Disseminated intravascular coagulation	98	29
Pulmonary thrombosis	249	24
Embolism	591	17
Cerebral venous thrombosis	107	15
Ischaemic cerebral infarction	84	9
Embolic stroke	89	6



Why Would COVID Vaccines Cause Blood Clots?

Spike Protein:

- Present in blood up to a month after vaccination
- By itself can activate platelets and promote clotting
- By itself penetrates the blood-brain barrier
- Has been found in cerebral tissue with micro-thromboses
- By itself can damage the lungs

Popular Tamil Actor, Comedian Vivekh, Dies In Chennai At 59 (One day after vaccination.)

On Thursday, Vivekh had taken his first Covid vaccine shot at a public event in the presence of Tamil Nadu's Health Secretary to promote vaccination.

Tamil Nadu | Written by Uma Sudhir | Updated: April 17, 2021 1:25 pm IST



Chennai: Popular Tamil actor and comedian Vivekh died this morning in the hospital, hours after he was admitted after a cardiac arrest.

The 59-year-old was reportedly critical in a Chennai hospital after a cardiac arrest on Thursday morning. He was brought in unconscious at 11 am, was resuscitated, subsequently underwent a coronary angiogram and then angioplasty. A medical bulletin said he was critical on ECMO support, which pumps and oxygenates blood outside the body, but died at 4:35 am today.

On Thursday, Vivekh had taken his first Covid vaccine shot at a public event in the presence of Tamil Nadu's Health Secretary to promote vaccination.

The hospital clarified that he suffered an acute coronary syndrome with cardiogenic shock. There was 100 per cent blockage in a vessel and his cardiac arrest may not be due to the vaccination.



Israel says Pfizer vaccine efficacy in preventing infection drops to 39%

Health Ministry report shows vaccine's efficacy is also down when it comes to preventing serious illness, 91%, and hospitalizations, 88%; recently 5,770 fully vaccinated people were diagnosed with COVID, 495 were hospitalized, 123 died

Adir Yanko | Published: 07.22.21, 22:04







Health officials presented their findings during a meeting of the ministry's Epidemic Management Team on Monday night, which showed that protection from coronavirus infections among vaccinated people decreased by 42% since the start of the inoculation drive in Israel.

In addition, protection from severe illness has also recorded a sharp drop of up to 60% among those who were inoculated in the early stages of the vaccine rollout.

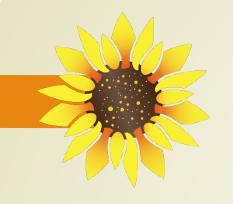


From Israel: % Vaccinated vs. % Cases Vaccinated (6/27-7/3)

Age Cases, Group Vaccinated		Cases, Unvaccinated	Percent of Cases Vaccinated	Percent of Population Vaccinated	
20-29	95	25	79%	78%	
30-39	133	33	80%	83%	
40-49	175	33	84%	86%	
50-59	127	18	88%	89%	
60-69	134	16	89%	91%	
70-79	90	7	93%	95%	
80-89	23	2	92%	94%	
90+	2	0	100%	93%	
קבוצת גיל	נדבקים מחוסנים	נדבקים לא מחוסנים	אחוז נדבקים מחוסנים	אחוז מחוסנים באוכלוסיה	

Source: Israel Ministry of Health Dashboard

https://datadashboard.health.gov.il/COVID-19/general



From Israel: % Vaccinated vs. Cases Vaccinated (7/4-7/10)

Age Group	Cases, Vaccinated	Cases, Unvaccinated	Percent of Cases Vaccinated	Percent of Population*** Vaccinated
20-29	217	61	78%	77%
30-39	248	84	75%	82%
40-49	356	54	87%	85%
50-59	237	26	90%	89%
60-69	227	14	94%	91%
70-79	143	12	92%	95%
80-89	42	6	88%	91%
קבוצת גיל	נדבקים מחוסנים	נדבקים לא מחוסנים	אחוז נדבקים מחוסנים	אחוז מחוסנים באוכלוסיה

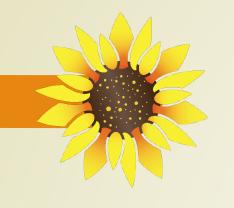
ישראל, מקרי קורונה מאומתים, 4 ביולי עד 10 ביולי, מחוסנים לעומת לא מחוסנים

Source: Israel Ministry of Health Dashboard https://datadashboard.health.gov.il/COVID-19/general

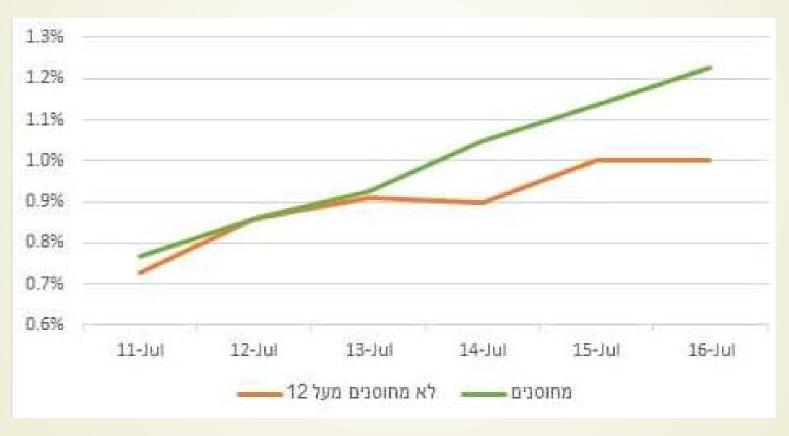
^{*} Vaccinated - 2 shots.

^{**} Unvaccinated - No shots.

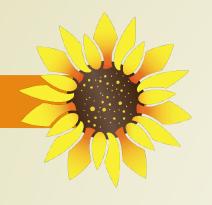
^{***} Excluding population with 1 shot.



Percent Testing Positive by Vaccination Status in Israel, 7/11-7/16

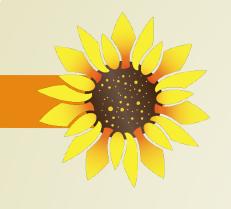


Orange: Non-Vaccinated 12+ Green: Vaccinated

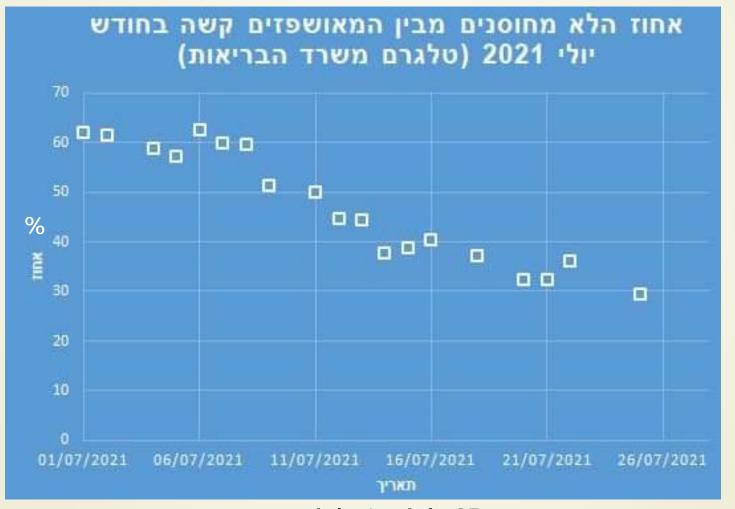


Effectiveness of Vaccine in Preventing Infection in Israel, 7/11-7/16

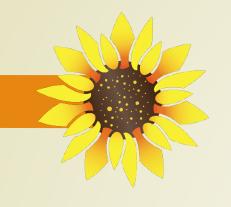




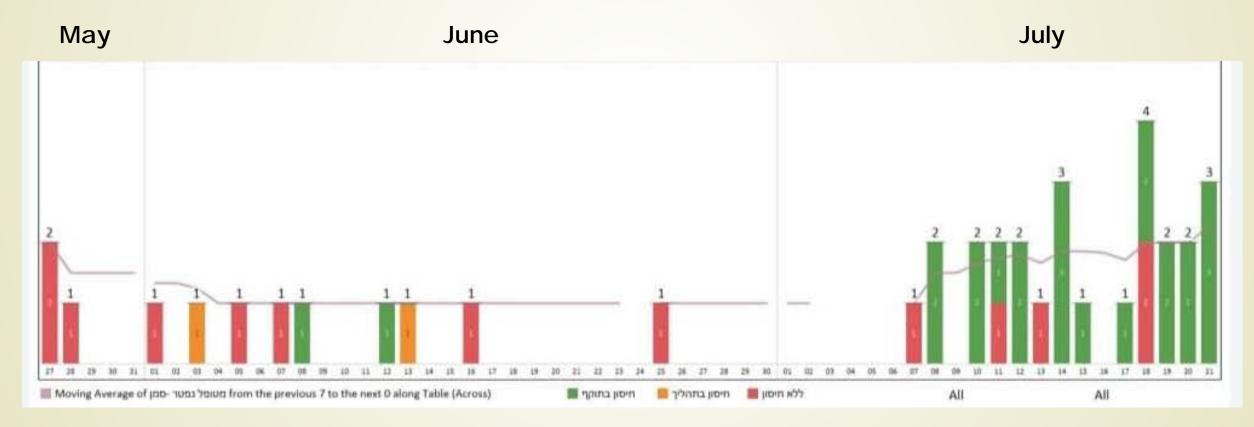
Percent Unvaccinated Among People Hospitalized with COVID-19 in Serious Condition



July 1 – July 25



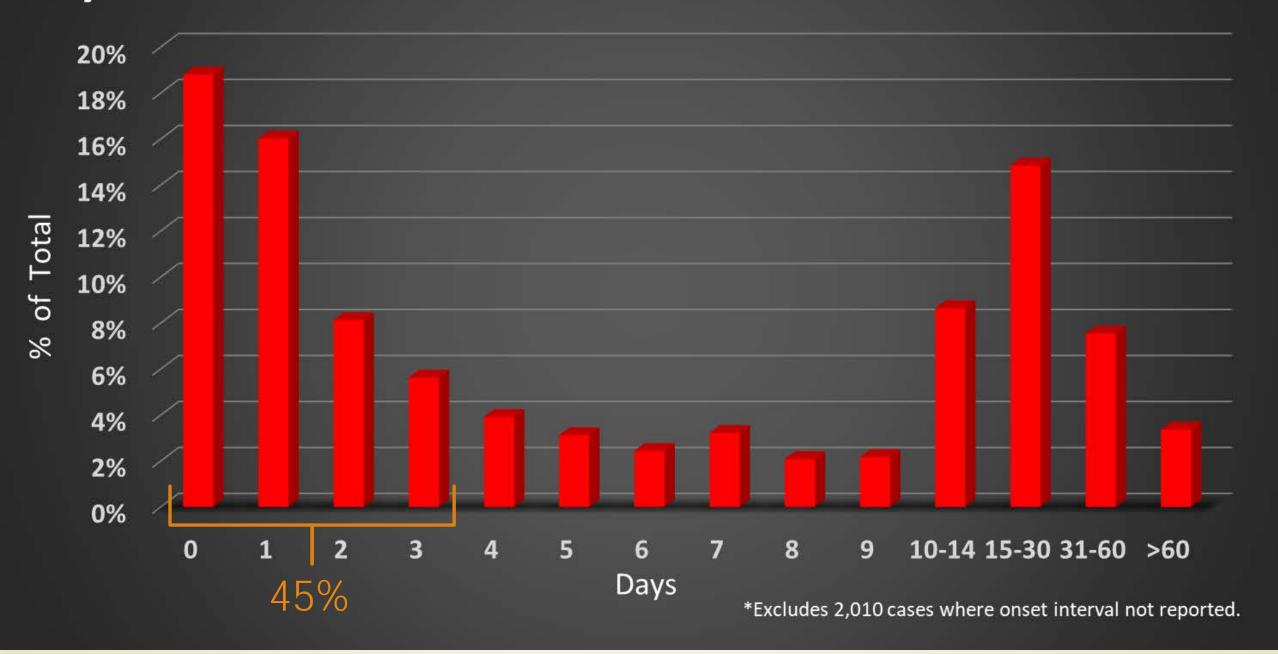
Deaths from/with SARS CoV-2 by Vaccination Status May 27-July 21



Green: Fully Vaccinated Yellow: Partially Vaccinated Red: Unvaccinated



Days Since Vaccination that Serious Event Occurred - VAERS



Serious Adverse Events Reported to VAERS, 1991-2021

COVID Vaccine Serious AE's So Far in 2021 Are 36% of All Serious AE's & 17x Annual Average

