

PA Vaccine Conversations on Twitter

Dr. Iuliia Alieva, Dawn Robertson, Dr. Kathleen M. Carley
Vaccine Hesitancy Project Update based on on July 8, 2022 – July 14, 2022

The CMU centers for:

Informed DEMocracy And Social cyber-security

Computational Analysis of Social and Organizational Systems



Carnegie Mellon University



7/26/2022

1

PA Vaccine Conversations Project

- ❑ This report is an effort to summarize social media conversations around COVID-19 issues in Pennsylvania, with a focus on vaccination. It contains an analysis of the general topics related to COVID-19 vaccination. This includes discussions related to COVID-19 regulations, mandates, masks, pro-and anti-vaccination campaigns, science messages, misinformation, disinformation, conspiracy theories, and vaccine hesitancy messages.
- ❑ Anti-Vax messaging includes vaccine hesitancy messages, opinions, questions, policy health and science related information, misinformation, disinformation, and conspiracy theories.

7/26/2022



2

Report Overview July 8– July 14

- ❑ COVID-19 mandates, masks, military, boosters, vaccine passports are trending this week;
- ❑ Trending stories: nypost.com/2022/07/07/biden-admin-snafu-leaves-1-million-monkeypox-doses-in-denmark Biden admin snafu leaves 1 million monkeypox doses in Denmark; nejm.org/doi/full/10.1056/NEJMoa2203965 Effects of Previous Infection and Vaccination on Symptomatic Omicron Infections; nytimes.com/2022/07/08/health/monkeypox-vaccine-treatment.html The U.S. May Be Losing the Fight Against Monkeypox, Scientists Say; foxnews.com/us/army-cuts-pay-benefits-60000-unvaccinated-national-guard-reserves Army cuts pay, benefits from 57,000 unvaccinated National Guard, Reserves;
- ❑ Popular anti-vax tweets: Uruguay demanded #pfizer state if graphene oxide was in the jab and what else is in it. Pfizer withdraws from Uruguay; J.T. Realmuto said he consulted with doctors he knew and decided he did not need a COVID vaccine. He will forfeit close to \$260,000. "I'm not going to let Canada tell me what I do and don't put in my body for a little bit of money," Realmuto said. "It's just not worth it;" qBoth Pfizer and Moderna admitted in the submitted papers seeking approval, these are NOT VACCINES, they are GENE THERAPY. Take a listen to a government committee hearing testimony. It's worth your time. <https://t.co/wvaYjmbVWn>; qWhen vaccine passports were being implemented, protests took place around the world - but there was hardly any coverage from the media. Due to the cost of living crisis, protests are happening around the world - but again, the media turns a blind eye. <https://t.co/ym9zDzeT07>; "You can either lose 1.38 billion customers or allow an independent investigation to be conducted to determine if your products are safe and immunogenic." The answer of #Pfizer, see below If you are still not awake yet, you should be by now. Credits: @hidear_3 #PfizerGate <https://t.co/GmstSbRQWp>

7/26/2022



Countering disinformation July 8– July 14

- ❑ This week, we see many vaccine hesitancy and disinformation stories;
- ❑ Among fact-checking stories, there is a debunking piece about misinterpreted Swedish study that shows Pfizer's COVID-19 vaccine changes recipients' DNA <https://apnews.com/article/Fact-Check-COVID-Vaccine-Sweden-Study-986569377766>
- ❑ FactCheck.org created a guide for COVID-19 Misconceptions <https://www.factcheck.org/covid-misconceptions/>
- ❑ Many anti-vax stories are focused on vaccination for children. FactCheck.org has recently published a guide to COVID-19 vaccines for the youngest kids <https://www.factcheck.org/2022/07/scicheck-a-guide-to-covid-19-vaccines-for-the-youngest-kids/>
- ❑ FactCheck.org also published a debunking story for an old disinformation claim about vaccines altering DNA. This story is still pervasive on social media and should be addressed <https://www.factcheck.org/2022/06/scicheck-website-peddles-old-debunked-falsehood-about-covid-19-mrna-vaccines/>

7/26/2022



Popular anti-vax stories sorted by shares

Anti-vax, disinformation, and vaccine hesitancy stories sorted by the number of shares:

- ❑ outkick.com/covid-booster-dose-less-than-20-effective-according-to-new-study COVID BOOSTER DOSE LESS THAN 20% EFFECTIVE ACCORDING TO NEW STUDY
- ❑ youtu.be/axK3SyyuBuYw A man who became partially paralyzed after getting his first dose is one of the first in Canada to be compensated for vaccine injury
- ❑ theepochtimes.com/few-young-children-are-getting-covid-19-vaccines-data-4585846.html Few Young Children Are Getting COVID-19 Vaccines: Data
- ❑ theepochtimes.com/city-of-pittsburghs-vaccine-mandate-will-decimate-already-struggling-police-force-says-detective-4583200.html City of Pittsburgh's Vaccine Mandate Will Decimate Already Struggling Police Force, Says Detective
- ❑ childrenshealthdefense.org/defender/pfizer-whistleblower-lawsuit-fraud Pfizer Asks Court to Dismiss Whistleblower Lawsuit Because Government Was Aware of Fraud
- ❑ ohiocapitaljournal.com/2022/07/06/activists-want-anti-vaccine-amendment-in-ohio-constitution Activists want anti-vaccine amendment in Ohio Constitution
- ❑ childrenshealthdefense.org/defender/army-national-guard-reserve-soldiers-covid-vaccine-mandate Army Cuts 60,000 Unvaccinated Guard and Reserve Soldiers From Training and Pay as COVID Vaccine Mandate Deadline Passes
- ❑ rumble.com/v1bnjr1-dr-mike-yeardon-the-alleged-vaccine-does-not-work.html Dr. Mike Yeadon: the alleged vaccine does not work
- ❑ sharylattkisson.com/2022/07/read-cdc-allegedly-failed-to-perform-promised-routine-surveillance-of-covid-19-vaccine-adverse-events (READ) CDC allegedly failed to perform promised 'routine surveillance' of Covid-19 vaccine adverse events
- ❑ elobservador.com.uy/nota/justicia-dio-lugar-al-amparo-y-suspension-la-vacunacion-en-ninos-menores-de-13-anos-20227712847 Justice gave rise to protection and suspended vaccination in children under 13 years of age
- ❑ thepolemicist.substack.com/p/the-wrinkle-abortion-rights-vaccine The Wrinkle: Abortion Rights, Vaccine Passports, and Bodily Autonomy
- ❑ odysee.com/@realjoelsmalley:2/pregnancyvaccineinjury:4 Experts warning of risks of COVID vaccine for pregnant women in August 2021 - Yeadon
- ❑ expose-news.com/2022/07/08/ardern-admits-covid-vaccines-dont-work Jacinda Ardern admits Highly Vaccinated New Zealand is losing the COVID battle because the jabs don't work
- ❑ tv.gab.com/channel/white_rabbit/view/vaccine-carnage-in-the-er-a-62ad0552683e90915ccf1f73 Vaccine Carnage In The ER, A Nurse Speaks Out
- ❑ cosmicworld.site/johns-hopkins-university-confirms-you-can-be-vaccinated-with-a-pcr-test-even-without-knowing Johns Hopkins University confirms: You can be vaccinated with a PCR test, even without knowing
- ❑ news.yahoo.com/single-most-qualified-mrna-expert-173600060.html 'Single most qualified' mRNA expert speaks about vaccine risks after he says YouTube banned his video
- ❑ twitter.com/LeviNathan555/status/1543622501300948994 "WeThePeople know that they are the real #virus. & #Elected #officials betrayed our #TRUST! #Nuremberg2"

7/26/2022



Anti-vax stories sorted by the projected impact

- ❑ outkick.com/covid-booster-dose-less-than-20-effective-according-to-new-study COVID BOOSTER DOSE LESS THAN 20% EFFECTIVE ACCORDING TO NEW STUDY
- ❑ rumble.com/v1bnjr1-dr-mike-yeardon-the-alleged-vaccine-does-not-work.html Dr. Mike Yeadon: the alleged vaccine does not work
- ❑ youtu.be/axK3SyyuBuYw A man who became partially paralyzed after getting his first dose is one of the first in Canada to be compensated for vaccine injury
- ❑ odysee.com/@realjoelsmalley:2/pregnancyvaccineinjury:4 Experts warning of risks of COVID vaccine for pregnant women in August 2021 - Yeadon
- ❑ expose-news.com/2022/07/08/ardern-admits-covid-vaccines-dont-work Jacinda Ardern admits Highly Vaccinated New Zealand is losing the COVID battle because the jabs don't work
- ❑ news.yahoo.com/single-most-qualified-mrna-expert-173600060.html 'Single most qualified' mRNA expert speaks about vaccine risks after he says YouTube banned his video
- ❑ sharylattkisson.com/2022/07/read-cdc-allegedly-failed-to-perform-promised-routine-surveillance-of-covid-19-vaccine-adverse-events (READ) CDC allegedly failed to perform promised 'routine surveillance' of Covid-19 vaccine adverse events
- ❑ theepochtimes.com/few-young-children-are-getting-covid-19-vaccines-data-4585846.html Few Young Children Are Getting COVID-19 Vaccines: Data
- ❑ ohiocapitaljournal.com/2022/07/06/activists-want-anti-vaccine-amendment-in-ohio-constitution Activists want anti-vaccine amendment in Ohio Constitution
- ❑ elobservador.com.uy/nota/justicia-dio-lugar-al-amparo-y-suspension-la-vacunacion-en-ninos-menores-de-13-anos-20227712847 Justice gave rise to protection and suspended vaccination in children under 13 years of age
- ❑ thepolemicist.substack.com/p/the-wrinkle-abortion-rights-vaccine The Wrinkle: Abortion Rights, Vaccine Passports, and Bodily Autonomy
- ❑ childrenshealthdefense.org/defender/pfizer-whistleblower-lawsuit-fraud Pfizer Asks Court to Dismiss Whistleblower Lawsuit Because Government Was Aware of Fraud
- ❑ tv.gab.com/channel/white_rabbit/view/vaccine-carnage-in-the-er-a-62ad0552683e90915ccf1f73 Vaccine Carnage In The ER, A Nurse Speaks Out
- ❑ cosmicworld.site/johns-hopkins-university-confirms-you-can-be-vaccinated-with-a-pcr-test-even-without-knowing Johns Hopkins University confirms: You can be vaccinated with a PCR test, even without knowing
- ❑ twitter.com/LeviNathan555/status/1543622501300948994 "WeThePeople know that they are the real #virus. & #Elected #officials betrayed our #TRUST! #Nuremberg2"



Measures for countering health disinformation

- ❑ Anti-vaccine narratives are still pervasive on social media, while there are not that many counter-narratives about the positive effects of vaccines;
- ❑ There is a need for a reframing of social media as a medically and socially valuable resource and platform because of its high impact on society;
- ❑ Healthcare organizations need to implement social media strategies to create and expand conversations countering disinformation on social media;
- ❑ It would be helpful for health communicators to cooperate with local influencers who could spread pro-vaccination messages. Another strategy could be to motivate health practitioners to use social media as a channel for communication with the public;
- ❑ "Strategies focused on meaningfully and safely engaging HCPs on social media, promoting interconnectivity across the medical and public health communities on COVID-19 vaccine truths, and sustaining these messaging efforts across vaccine implementation stages will be our best hope of preventing any more missed doses and promoting "misinformation immunity" for all." (Hernandez et al. 2021. "The COVID-19 vaccine social media infodemic: healthcare providers' missed dose in addressing misinformation and vaccine hesitancy.")

7/26/2022



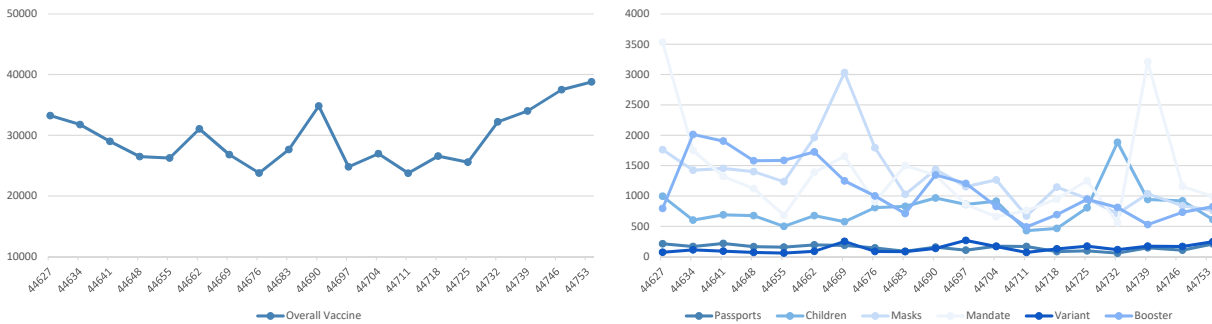
Measures for countering health disinformation

- ❑ As a trusted source of information on vaccines, family physicians play a crucial role in driving vaccine acceptance;
- ❑ Sharing stories, building trust with patients, addressing pain associated with vaccination, presenting vaccination as the default approach early on, focusing on the benefits of protection, and being honest about side effects could also help to promote pro-vaccination attitudes (Shen & Dubey 2019. "Addressing vaccine hesitancy: Clinical guidance for primary care physicians working with parents");
- ❑ It is helpful to provide more information for the patients about the possible disinformation strategies they may deal with, such as manipulating emotions to promote misinformation and conspiracy theories to sow confusion and create division. Inoculation strategy may help to prepare the community by presenting counterarguments to misinformation and raising awareness of negative emotional appeals spread by anti-vaccine campaigns;
- ❑ Framing vaccination as a concrete, actionable strategy to reduce COVID-19 risk may help to address negative emotions, increase self-efficacy and ensure the feelings of control over reducing COVID-19 risk.

7/26/2022



Trends (tweets per week) July 8– July 14



High Level View by City July 8 – July 14

	Total PA	Philadelphia		Pittsburgh		Erie		Allentown/Bethlehem		Other	
Conversation	Tweets	Tweets	%	Tweets	%	Tweets	%	Tweets	%	Tweets	%
Overall Vaccine	33544	15486	46.2%	12168	36.3%	329	1.0%	4076	12.2%	1485	4.4%
Vaccine Passports	208	108	0.7%	58	0.5%	4	1.2%	34	0.8%	4	0.3%
FDA Approval	49	26	0.2%	8	0.1%			11	0.3%	4	0.3%
Boosters	503	256	1.7%	146	1.2%	8	2.4%	58	1.4%	35	2.4%
Employees	121	44	0.3%	49	0.4%	4	1.2%	16	0.4%	8	0.5%
"Experimental"	102	41	0.3%	38	0.3%	1	0.3%	18	0.4%	4	0.3%
Children	356	204	1.3%	90	0.7%	1	0.3%	50	1.2%	11	0.7%
Myocarditis	54	34	0.2%	8	0.1%	1	0.3%	10	0.2%	1	0.1%
Heart	161	93	0.6%	43	0.4%	5	1.5%	15	0.4%	5	0.3%
Masks	746	355	2.3%	160	1.3%	14	4.3%	111	2.7%	106	7.1%
Thrombosis/VITT	7	3	0.0%	3	0.0%			1	0.0%		
Mandates	925	480	3.1%	244	2.0%	13	4.0%	159	3.9%	29	2.0%
Natural Immunity	130	98	0.6%	15	0.1%			9	0.2%	8	0.5%
Efficacy	123	60	0.4%	33	0.3%			21	0.5%	9	0.6%
Omicron	164	85	0.5%	48	0.4%			25	0.6%	6	0.4%
Delta Variant	48	15	0.1%	10	0.1%	4	1.2%	5	0.1%	14	0.9%
Race	643	364	2.4%	146	1.2%	6	1.8%	89	2.2%	38	2.6%
Ivermectin	50	20	0.1%	20	0.2%	1	0.3%	8	0.2%	1	0.1%
Military	369	151	1.0%	116	1.0%	5	1.5%	79	1.9%	18	1.2%
Breakthrough	22	11	0.1%	6	0.0%			4	0.1%	1	0.1%

7/26/2022

- Conversation topics trending this week over last
 - Military
 - Passports
 - Boosters



High Level View by County July 8- July 14

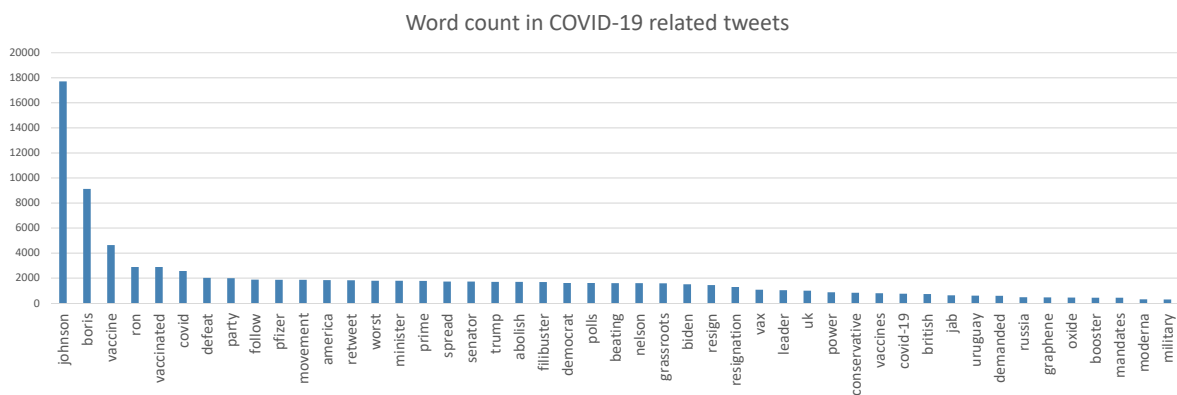
County	Allegheny	Beaver	Butler	Cambria	Fayette	Indiana	Somerset	Westmoreland
Overall Vaccine	12385	20	30	9	35	5	3	25
Vaccine Passports	59							
FDA	8							
Boosters	153							
Employees	53							
"Experimental"	38		1					
Children	91							
Myocarditis	9							
Heart	43		1		1			
Masks	181		3	3	1			3
Thrombosis/VITT	3							
Mandates	246		3					1
Natural Immunity	15							
Efficacy	34	1						1
Omicron	49							1
Delta Variant	15							1
Race	151				1			
Ivermectin	20							
Military	118							
Breakthrough	6				1			

- Race: pulled by one of the vaccine keywords plus at least one other term in ("Black", "African American", "of color", "Latin", "Hispanic", "brown", "eugenic")

7/26/2022



Top Words Used per Week July 8- July 14



7/26/2022



Top Hashtags by County July 8– July 14

- ❑ We've checked hashtags in several counties such as Allegheny, Beaver, Butler, Cambria, Fayette, Indiana, Somerset, and West Moreland. After removing hashtags that were part of our search criteria, the top 5 hashtags for each county related to COVID19/vaccines are as follows*:

Allegheny	Beaver + Butler	Cambria	West Moreland
pfizer (216)	herewego (2)	covidisnotover (1)	covid19 (1)
covid19 (85)	pittsburgh (2)		omicron (1)
borisjohnson (34)	abortionban (1)		vaccinated (1)
herewego (33)	vaccinedeaths (1)		
pfizergate (33)	covid (1)		

7/26/2022



Top Hashtags by City July 8– July 14

- ❑ After removing hashtags that were part of our search criteria, the top 5 hashtags for each region related to COVID19/vaccines are as follows:

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/ Bethlehem	Other
pfizer (333)	pfizer (439)	pfizer (37)	pfizer (216)	pfizer (9)	pfizer (158)	pfizer (16)
metoo (142)	uruguay (13)	johnsonout164 (26)	covid19 (85)	borisjohnsonresign (3)	covid19 (31)	covid19 (13)
covid19 (91)	covid19 (7)	covid19 (19)	borisjohnson (34)	proudbblue22 (3)	pfizergate (19)	vaccine (11)
vaccine (45)	johnsonout164 (6)	foxnews (11)	herewego (33)	trumpforprison (3)	uruguay (16)	clownfall (7)
pfizergate (44)	vaccineinjuries (5)	vaccineswork (11)	pfizergate (33)	borisjohnson (2)	mrna (14)	metoo (5)

7/26/2022



Top URLs by County July 8– July 14

Allegheny	Butler + Beaver	Fayette	Indiana	West Moreland
outkick.com/covid-booster-dose-less-than-20-effective-according-to-new-study COVID BOOSTER DOSE LESS THAN 20% EFFECTIVE ACCORDING TO NEW STUDY (31)	newsmax.com/world/globaltalk/boris-johnson-united-kingdom-resign-prime-minister Scandal-Ridden Boris Johnson Resigns as UK Prime Minister (1)	outkick.com/john-mcenroe-bashes-politicians-for-us-open-vaccine-ban-on-unvaxxed-novak-djokovic JOHN MCENROE BASHES POLITICIANS FOR US OPEN VACCINE BAN ON UNVAXXED NOVAK DJOKOVIC (1)	elobservador.com.uy/nota/justicia-dio-lugar-al-amparo-y-suspension-la-vacunacion-en-ninos-menores-de-13-anos-20227712847 Justice gave rise to protection and suspended vaccination in children under 13 years of age (1)	nypost.com/2022/07/07/biden-admin-snafu-leaves-1-million-monkeypox-doses-in-denmark Biden admin snafu leaves 1 million monkeypox doses in Denmark (1)
theepochtimes.com/city-of-pittsburghs-vaccine-mandate-will-decimate-already-struggling-police-force-says-detective 4583200.html City of Pittsburgh's Vaccine Mandate Will Decimate Already Struggling Police Force, Says Detective (26)	nypost.com/2022/07/07/biden-admin-snafu-leaves-1-million-monkeypox-doses-in-denmark Biden admin snafu leaves 1 million monkeypox doses in Denmark (1)	telegraph.co.uk/politics/2022/07/07/boris-johnson-resign-news-government-resignations-gove-zahawi Boris Johnson resigns: New policies must wait for next leader, says PM (1)	thepolemicist.substack.com/p/the-wrinkle-abortion-rights-vaccine The Wrinkle: Abortion Rights, Vaccine Passports, and Bodily Autonomy (1)	
theintercept.com/2022/07/07/mass-shooting-guns-ron-johnson-campaign RON JOHNSON CAMPAIGN SCRAMBLED TO PULL "MASS MURDER" AD AFTER JULY 4 MASS SHOOTING (21)	nationalgeographic.com/science/article/how-contagious-is-monkeypox-and-should-you-get-a-vaccine-heres-the-latest How contagious is monkeypox—and should you get a vaccine? Here's the latest. (1)			
childrenshealthdefense.org/defender/pfizer-whistleblower-lawsuit-fraud Pfizer Asks Court to Dismiss Whistleblower Lawsuit Because Government Was Aware of Fraud (14)	fox.ws/3nSwQo4 John McEnroe says Novak Djokovic should play US Open despite COVID vax status: 'This is ridiculous' (1)			
ohiocapitaljournal.com/2022/07/06/activists-want-anti-vaccine-amendment-in-ohio-constitution Activists want anti-vaccine amendment in Ohio Constitution (13)	nyti.ms/3RiwdRC Tory Ministers Tell Boris Johnson to Resign (1)			

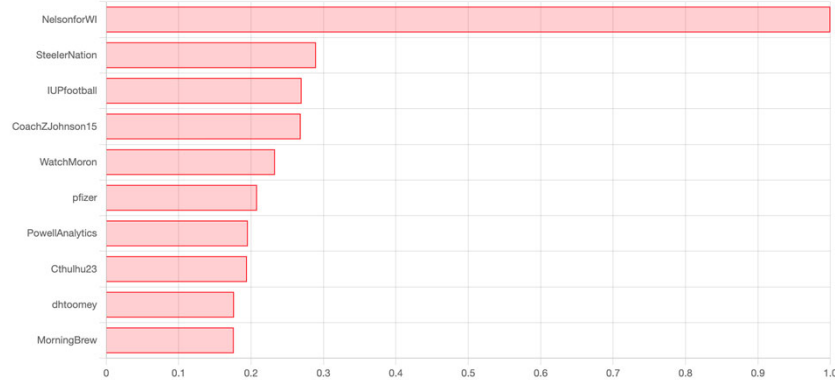
Carnegie Mellon University

Top URLs by City July 8– July 14

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/ Bethlehem	Other
youtube.be/asK3SvuBuYw A man who became partially paralyzed after getting his first dose is one of the first in Canada to be compensated for vaccine injury (42)	tv.gab.com/channel/white-rabbit/view/vaccine-carnegie-in-the-er-a-62ad05526834e9b915cc1173 Vaccine Carnage in The ER, A Nurse Speaks Out (8)	foxnews.com/us/army-cuts-pay-benefits-60000-unvaccinated-national-guard-reserves Army cuts pay, benefits from 57,000 unvaccinated National Guard, Reserves (12)	outkick.com/covid-booster-dose-less-than-20-effective-according-to-new-study COVID BOOSTER DOSE LESS THAN 20% EFFECTIVE ACCORDING TO NEW STUDY (31)	ohiocapitaljournal.com/2022/07/06/activists-want-anti-vaccine-amendment-in-ohio-constitution Activists want anti-vaccine amendment in Ohio Constitution (2)	outkick.com/covid-booster-dose-less-than-20-effective-according-to-new-study COVID BOOSTER DOSE LESS THAN 20% EFFECTIVE ACCORDING TO NEW STUDY (13)	nejm.org/doi/full/10.1056/NEJMoa2203965 Effects of Previous Infection and Vaccination on Symptomatic Omicron Infections (5)
nejm.org/doi/full/10.1056/NEJMoa2203965 Effects of Previous Infection and Vaccination on Symptomatic Omicron Infections (33)	news.com/2022/07/08/ardern-admits-highly-vaccinated-new-zealand-is-losing-the-covid-battle-because-the-jabs-dont-work Jacinda Ardern admits Highly Vaccinated New Zealand is losing the COVID battle because the jabs don't work (6)	childrenshealthdefense.org/defender/army-national-guard-reserve-soldiers-covid-vaccine-mandate Army Cuts 60,000 Unvaccinated Guard and Reserve Soldiers From Training and Pay as COVID Vaccine Mandate Deadline Passes (11)	theepochtimes.com/city-of-pittsburghs-vaccine-mandate-will-decimate-already-struggling-police-force-says-detective 4583200.html City of Pittsburgh's Vaccine Mandate Will Decimate Already Struggling Police Force, Says Detective (26)	outkick.com/covid-booster-dose-less-than-20-effective-according-to-new-study COVID BOOSTER DOSE LESS THAN 20% EFFECTIVE ACCORDING TO NEW STUDY (2)	militarytimes.com/news/your-army/2022/07/06/tens-of-thousands-of-part-time-soldiers-face-discharge-for-missing-covid-vax-deadline Tens of thousands of part-time soldiers face discharge for missing COVID vax deadline (12)	nypost.com/2022/07/07/biden-admin-snafu-leaves-1-million-monkeypox-doses-in-denmark Biden admin snafu leaves 1 million monkeypox doses in Denmark (4)
theepochtimes.com/few-young-children-are-getting-covid-19-vaccines-data 4585846.html Few Young Children Are Getting COVID-19 Vaccines: Data (27)	sharylattkeison.com/2022/07/read-cdc-allegedly-failed-to-perform-promised-routine-surveillance-of-covid-19-vaccine-adverse-events (READ) CDC allegedly failed to perform promised routine surveillance of Covid-19 vaccine adverse events (6)	rumble.com/v1bnjr1-dr-mike-yeardon-the-alleged-vaccine-does-not-work.html Dr. Mike Yeardon: the alleged vaccine does not work (6)	theintercept.com/2022/07/07/mass-shooting-guns-ron-johnson-campaign RON JOHNSON CAMPAIGN SCRAMBLED TO PULL "MASS MURDER" AD AFTER JULY 4 MASS SHOOTING (21)	twitter.com/ericmgarcia/status/15445196307426304 "When I asked Greene about whether she was vaccinated, she wouldn't give me a straight answer." (2)	twitter.com/LeviNathan555/status/15436622501300948994 "We The People know that they are the real #virus. & #Elected #officials betrayed our #TRUST! #Nuremberg2" (7)	childrenshealthdefense.org/defender/pfizer-whistleblower-lawsuit-fraud Pfizer Asks Court to Dismiss Whistleblower Lawsuit Because Government Was Aware of Fraud (3)
latimes.com/california/story/2022-07-05/why-ba-4-and-ba-5-pose-big-coronavirus-risk-to-california Super contagious, able to reinfect: California faces big coronavirus risk from BA.4, BA.5 (19)	elobservador.com.uy/nota/justicia-dio-lugar-al-amparo-y-suspension-la-vacunacion-en-ninos-menores-de-13-anos-20227712847 Justice gave rise to protection and suspended vaccination in children under 13 years of age (5)	theintercept.com/2022/07/07/mass-shooting-guns-ron-johnson-campaign RON JOHNSON CAMPAIGN SCRAMBLED TO PULL "MASS MURDER" AD AFTER JULY 4 MASS SHOOTING (6)	childrenshealthdefense.org/defender/pfizer-whistleblower-lawsuit-fraud Pfizer Asks Court to Dismiss Whistleblower Lawsuit Because Government Was Aware of Fraud (14)	youtu.be/PLo2Wwa3NNA Omicron Boosters, Kids' Vaccine & More (w/Dr. Paul Offit) (2)	cosmicworld.site/johns-hopkins-university-confirms-you-can-be-vaccinated-with-a-pcr-test-even-without-knowing Johns Hopkins University confirms: You can be vaccinated with a PCR test, even without knowing (5)	evanhospital.com/virus-covid-19-vaccine-information (3)
nytimes.com/2022/07/08/health/monkeypox-vaccine-treatment.html The U.S. May Be Losing the Fight Against Monkeypox, Scientists Say (19)	odyssey.com/@realjoelsalley/2/pregnancyvaccineinjury Experts warning of risks of COVID vaccine for pregnant women in August 2021 - Yeardon (5)	montcopa.org/vaccine-facts-about-the-covid-19-vaccine-in-a-series-virtual-meeting (4)	ohiocapitaljournal.com/2022/07/06/activists-want-anti-vaccine-amendment-in-ohio-constitution Activists want anti-vaccine amendment in Ohio Constitution (13)	https://abcnews.go.com/US/dr-simone-gold-leading-anti-vax-figure-sentenced/story?id=85445732 Dr. Simone Gold, leading anti-vax figure, sentenced for storming Capitol on Jan. 6 (1)	khn.org/news/article/pfizer-pandemic-vaccine-market-paxlovid-outsize-profit-influence How Pfizer Won the Pandemic, Reaping Outsize Profit and Influence (5)	news.yahoo.com/single-most-qualified-mrna-expert-173600060.html "Single most qualified" mRNA expert speaks about vaccine risks after he says YouTube banned his video (3)

Analysis of Tweeters - Super Spreaders

- ❑ Super Spreaders are users which generate content that is shared often, and hence spread information effectively.



7/26/2022



Analysis of Tweeters - Super Friends

- ❑ Super Friends are users that exhibit frequent two-way communication, facilitating large or strong communication networks.

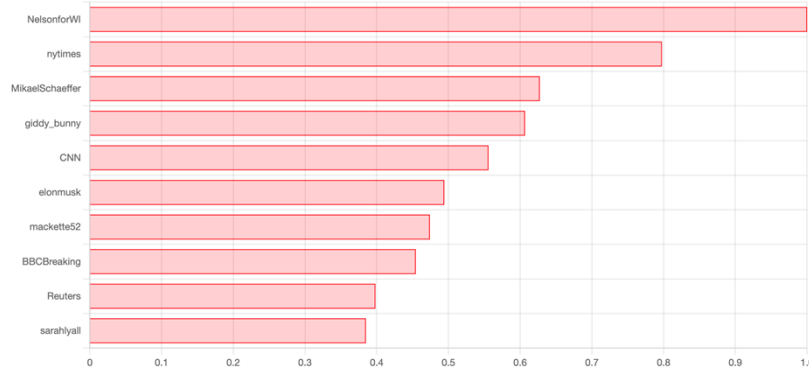


7/26/2022



Analysis of Tweeters - Other Influencers

- Other Influencers are users which have an active network presence, by tweeting often or mentioning users often, and operate in central parts of the conversation, such as by using important hashtags, or mentioning important users.



7/26/2022



Accounts Referenced by the Most Tweets

- This shows the tweeters that are most often referenced (e.g. mentioned) in PA tweets. Value is the number of tweets that reference the agent.

Agent Label	Value
NelsonforWI	1826
pfizer	452
WatchMoron	390
RhonddaBryant	299
13sarahmurphy	283
Angry_Voice	280
JuliaDavisNews	261
bennyjohnson	232
JohnFetterman	212
robreiner	212
NelsonforWI	1826
pfizer	452
WatchMoron	390

7/26/2022



Trending Tweets July 8– July 14

Tweets that are the most forwarded, either by retweet, reply, or quote:

- ❑ Uruguay demanded #pfizer state if graphene oxide was in the jab and what else is in it. Pfizer withdraws from Uruguay.
- ❑ The future looks brighter with science. <https://t.co/IVNc9c17fy>
- ❑ J.T. Realmuto said he consulted with doctors he knew and decided he did not need a COVID vaccine. He will forfeit close to \$260,000. "I'm not going to let Canada tell me what I do and don't put in my body for a little bit of money," Realmuto said. "It's just not worth it."
- ❑ Both Pfizer and Moderna admitted in the submitted papers seeking approval, these are NOT VACCINES, they are GENE THERAPY. Take a listen to a government committee hearing testimony. It's worth your time. <https://t.co/wvaYimbVWn>
- ❑ This is our @CDCgov X No warning on BA.5 X Still says 2 vaccine doses ="fully vaccinated" X Says 5 days is all that's needed for isolation when 5 days is the median length of infectiousness X 1 in 4 age 50+ w/ 2nd booster (<-survival benefit) X Transmission is the accurate map <https://t.co/zHMT1NFxE>
- ❑ When vaccine passports were being implemented, protests took place around the world - but there was hardly any coverage from the media. Due to the cost of living crisis, protests are happening around the world - but again, the media turns a blind eye. <https://t.co/vm9zDzeTQ7>
- ❑ "You can either lose 1.38 billion customers or allow an independent investigation to be conducted to determine if your products are safe and immunogenic." The answer of #Pfizer, see below If you are still not awake yet, you should be by now. Credits: @hidear_3 #PfizerGate <https://t.co/GmstSbROWp>
- ❑ BREAKING: 40,000 National Guard and 22,000 Reserve soldiers who refused the COVID vaccine are no longer allowed to participate in military duties, effectively cutting them off from some of their military benefits. Good!
- ❑ No one should be fired, blocked from entering a classroom, or otherwise for their personal decision not to get the COVID vaccine. Everyone fired should get their jobs back with backpay.
- ❑ Obama admits the Vaccine was tested on the population. <https://t.co/AqmZgHFLKK>
- ❑ #Pfizer has withdrawn from India & now Uruguay because they wanted an independent study on the safety of their "vaccine". That pretty much sums it all up doesn't it?

7/26/2022

21



General PA Conversation July 8– July 14



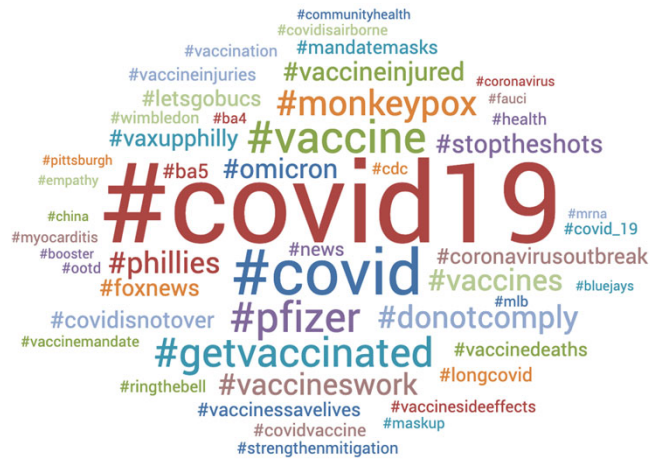
Source: VCTR Project Dashboard

7/26/2022

22



PA Hashtag Cloud July 8– July 14



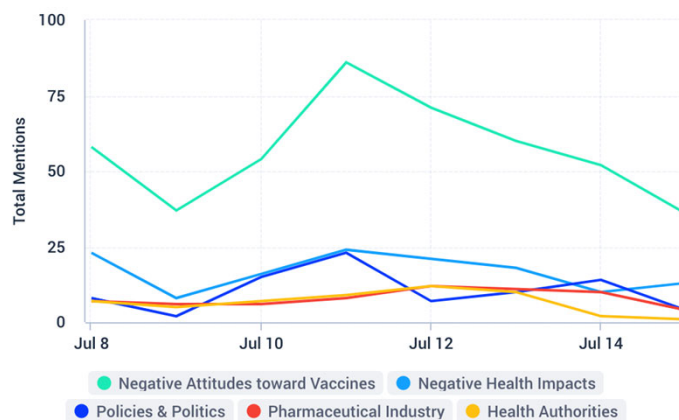
7/26/2022

Source: VCTR Project Dashboard



23

Negative Attitudes July 8– July 14



7/26/2022

Source: VCTR Project Dashboard



24

Negative Hashtag Cloud July 8– July 14



7/26/2022

Source: VCTR Project Dashboard

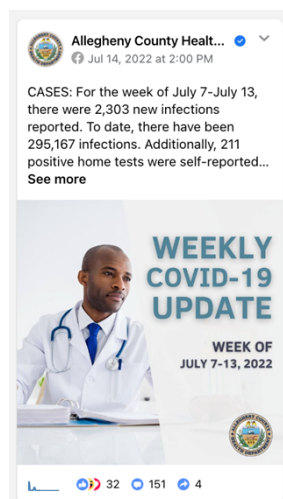


Trending Posts on July 8– July 14

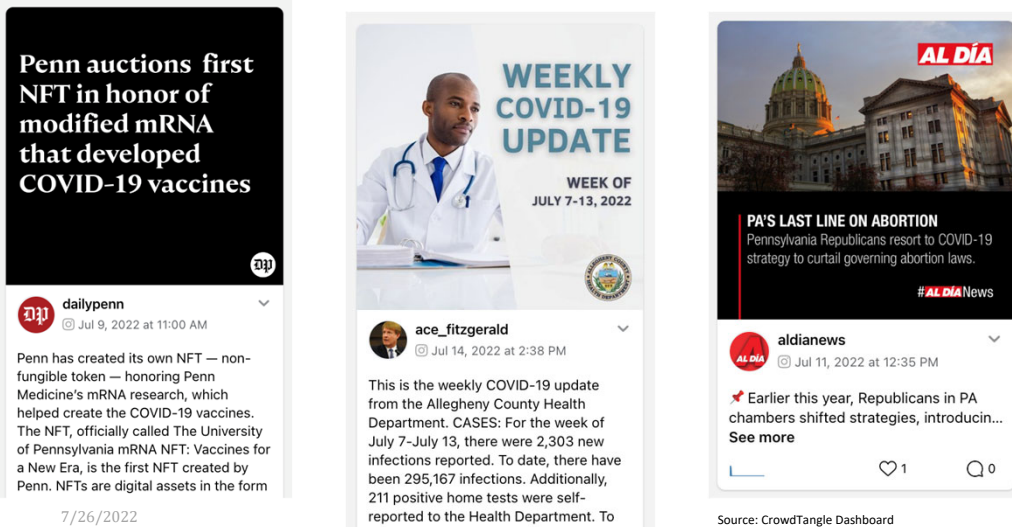


Source: CrowdTangle Dashboard

7/26/2022



Trending Posts on Instagram July 8– July 14

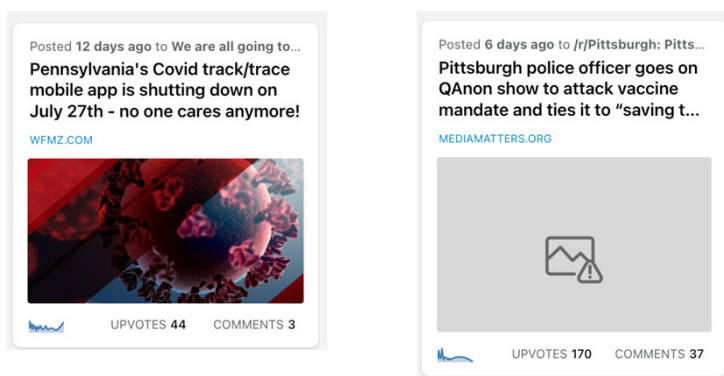


Source: CrowdTangle Dashboard

27



Trending Posts on Reddit July 8– July 14



7/26/2022

Source: CrowdTangle Dashboard

28



For More Information

- ❑ Director Kathleen M. Carley - kathleen.carley@cs.cmu.edu
 - ❑ <http://www.casos.cs.cmu.edu/bios/carley/carley.html>
- ❑ IDeaS website - <https://www.cmu.edu/ideas-social-cybersecurity/>
- ❑ CASOS website - <http://www.casos.cs.cmu.edu/>
- ❑ Social Cybersecurity Working Group - <http://social-cybersecurity.org>
- ❑ Facebook: [@IDeasCMU](https://www.facebook.com/IDeasCMU)
- ❑ Twitter: [@IDeaSCMU](https://twitter.com/IDeaSCMU)
- ❑ YouTube: [IDeaS Center](https://www.youtube.com/IDeaS-Center)
- ❑ Ask to be on our Email-Distro Lists

7/26/2022

Copyright © 2021 Kathleen M. Carley



29