

PA Vaccine Conversations and Misinformation on Twitter

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Vaccine Hesitancy Project Update based on July 16 – July 22, 2021

The CMU centers for:

Informed DEMocracy And Social cyber-security

Computational Analysis of Social and Organizational Systems



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1

1

- ❑ 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.
- ❑ The material contained in this report is a summary of social media content and does not represent a judgment or characterization of any individual.

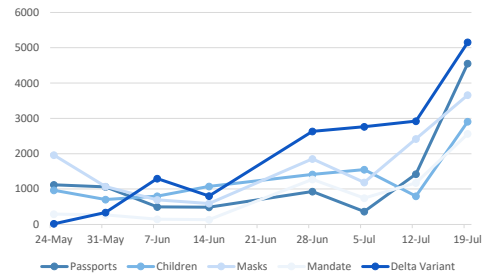
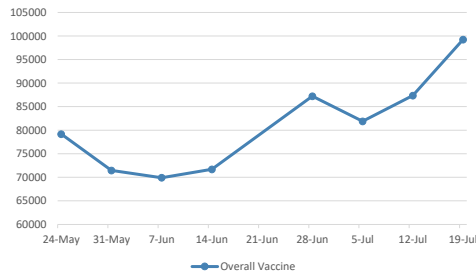
1/11/2022

2



2

Trends (tweets per week)



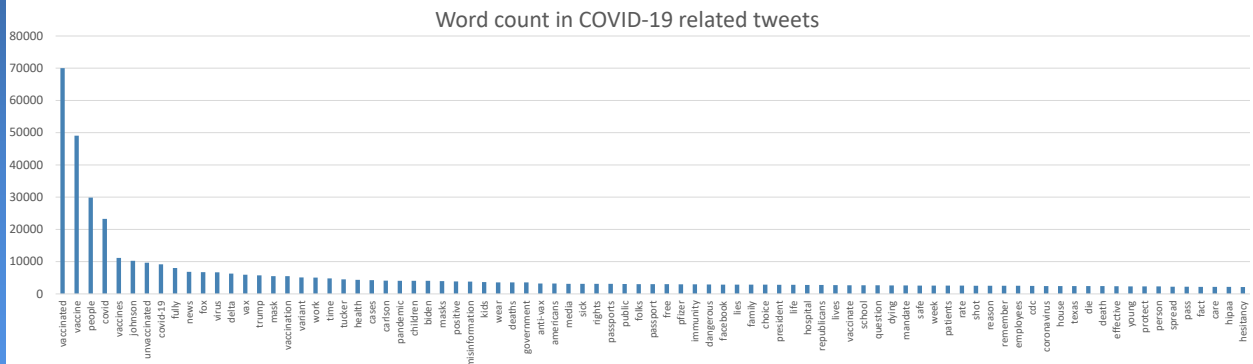
*These counts are from the entire PA-based conversation, which will include out-of-state tweets retweeted by in-state agents.

1/11/2022



3

Top Words Used per Week July 16 – July 22



1/11/2022



4

High Level View by City July 16 – July 22

	Total PA	Philadelphia		Pittsburgh		Erie		Allentown/Bethlehem		Other	
Conversation	Tweets	Tweets	%	Tweets	%	Tweets	%	Tweets	%	Tweets	%
Overall Vaccine	82065	49732	60.6%	17070	20.8%	742	0.9%	12527	15.3%	1994	2.4%
Vaccine Passports	2429	1120	2.3%	793	4.6%	25	3.4%	442	3.5%	49	2.5%
Not FDA Approved	221	125	0.3%	30	0.2%	5	0.7%	56	0.4%	5	0.3%
Boosters	170	106	0.2%	29	0.2%	1	0.1%	28	0.2%	6	0.3%
Misinfo: Shedding	17	10	0.0%	2				3	0.0%	2	0.1%
"Experimental"	319	181	0.4%	61	0.4%	3	0.4%	66	0.5%	8	0.4%
Children	1125	756	1.5%	167	1.0%	4	0.5%	178	1.4%	20	1.0%
Myocarditis	10	6	0.0%	1	0.0%			3	0.0%		
Heart	294	167	0.3%	63	0.4%	3	0.4%	54	0.4%	7	0.4%
Masks	4135	2563	5.2%	668	3.9%	32	4.3%	679	5.4%	193	9.7%
Infertility	19	13	0.0%	1	0.0%			4	0.0%	1	0.1%
Mandates	1005	604	1.2%	156	0.9%	12	1.6%	199	1.6%	34	1.7%
Natural Immunity	221	162	0.3%	38	0.2%	1	0.1%	19	0.2%	1	0.1%
Efficacy	102	54	0.1%	13	0.1%			30	0.2%	5	0.3%
Spike Proteins	90	75	0.2%	5	0.0%			9	0.1%	1	0.1%
Delta Variant	2027	1193	2.4%	378	2.2%	17	2.3%	346	2.8%	93	4.7%
Race	628	387	0.8%	133	0.8%	2	0.3%	91	0.7%	15	0.8%
Graphene Oxide	15	10	0.0%	1	0.0%			4	0.0%		
Door-To-Door "Strike Force"	198	122	0.2%	28	0.2%	2	0.3%	39	0.3%	7	0.4%

1/11/2022

- Tweets here counted only if there is a city location attached
- Magnets and Microchips dropped: most tweets are mocking or sarcastic now
- Graphene Oxide: originated in Spain as a claim that the Pfizer vaccine is comprised of 99%+ toxic graphene oxide
- Door-to-door and "strike force": Vaccine initiatives by the White House causing concern



5

High Level View by County July 16 – July 22

County	Allegheny	Beaver	Butler	Cambria	Fayette	Indiana	Somerset	Westmoreland
Overall Vaccine	17291	15	57	52	45	11	8	25
Vaccine Passports	800		1		1			
Not FDA Approved	30							
Boosters	31		1					
Misinfo: Shedding	2			1				
"Experimental"	62			2				
Children	168			1	2			
Myocarditis	1							
Heart	65							
Masks	677		1	21	2	2	2	4
Infertility	1							
Mandates	162				1			
Natural Immunity	38							
Efficacy	13							
Spike Proteins	5							
Delta Variant	385	2	1	3	2			
Race	134		2	1				
Graphene Oxide	1							
Door-To-Door "Strike Force"	28				1	1		

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- Tweets counted here if there is a county location attached
- Race: pulled by one of the vaccine keywords plus at least one other term in ("Black", "African American", "of color", "Latin", "Hispanic", "brown", "eugenic")



6

Top Hashtags by City July 16 – July 22

❑ 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
covid19 (2170) + covid (459)	Covid19 (287) + covid (92)	covid19 (365) + covid (142)	covid19 (729) + covid (172)	covid19 (39) + covid (9)	covid19 (629) + covid (249)	covid19 (98) + covid (24)
Deltavariant (348)	Deltavariant (73)	Tuckeriskillingus (85)	Getvaccinated (204) + vaccine (127) + vaccinated (112)	getvaccinated (15)	getvaccinated (148)	Getvaccinated (34)
Getvaccinated (339) + vaccine (320) + vaxupphilly (273) + vaccinated (254)	Vaccine (47) + getvaccinated (41)	getvaccinated (83)	Covidvaccine (105)	Tuckeriskillingus (15) + heytucker (7)	deltavariant (140)	Deltavariant (22)
Covidiots (214)	Covidiots (36)	Deltavariant (72)	Covidiots (60)	covidvaccine (7)	Tuckeriskillingus (85) + heytucker (61)	Vaccinated (20) + vaccine (20) + covidvaccine (14)
Tuckeriskillingus (202) Pandemicoftheunvaccinated (117)	Tuckeriskillingus (25) pandemicoftheunvaccinated (16)	Vaccine (54) + vaccinated (40) + covidvaccine (33)	Coronavirus (55)	Deltavariant (6)	Pandemicoftheunvaccinated (53)	Tuckeriskillingus (17)

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7

Top Hashtags by County July 16 – July 22

❑ We've checked hashtags in several counties such as Allegheny, Beaver, Bradford, Butler, Cambria, Crawford, Fayette, Indiana, Lackawanna, Luzerne, Lycoming, Monroe, Pike, Potter, Somerset, West Moreland, York. 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	Butler	Cambria	Fayette	Lackawanna	Luzerne	Monroe	West Moreland
covid19 (735) + covid (173)	covid19 (6)	fuckthevax (1)	Vaccine (4)	Covid19 (2)	Trumpvirus (2)	Coronadiet (1)	Covid19 (1)
getvaccinated (206)	Getvaccinated (3)		Covid19 (1)	Covidiots (1)	Chinavirus (1)	Covid19 (1)	Antivax (1)
deltavariant (160)	tucker Carlson (1) + tuckerresign (1)		Sheep (2)	factcheckthis (1)	Tuckeriskillingus (1)	Getvaccinated (1)	Vaccinehesitancy (1)
Tuckeriskillingus (146)	Vaccinated (1) + vaccinateyourself (1)		Tuckeriskillingus (1)	Itsnotavaccine (1) + vaccinefailure (1)		Vaccinated + vaccines (1)	
Vaccine (127) + vaccinated (113)	virus (1)		Tuckerresign (1)	Tucker Carlson (1) + tuckeriskillingus (1)		Vaccineswork (1)	

1/11/2022* If you do not see a county in the table, that means we couldn't find hashtags related to COVID19 in this county.

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8

Top URLs by City July 16 – July 22

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/ Bethlehem	Other
https://twitter.com/reptomasmassie/status/1417036229187678208 Just received this from someone in the military regarding possible compulsory COVID vaccines: "Good evening, Congressman. Just thought I'd pass word that >15% of the officers at my command will either retire early or resign their commissions if the mandate is given." (827)	https://www.al.com/news/2021/07/17/m-sorry-but-its-too-late-alabama-doctor-on-treating-unvaccinated-dying-covid-patients.html "I'm sorry, but it's too late": Alabama doctor on treating unvaccinated, dying COVID patients (59)	https://www.al.com/news/2021/07/17/m-sorry-but-its-too-late-alabama-doctor-on-treating-unvaccinated-dying-covid-patients.html "I'm sorry, but it's too late": Alabama doctor on treating unvaccinated, dying COVID patients (92)	https://www.al.com/news/2021/07/17/m-sorry-but-its-too-late-alabama-doctor-on-treating-unvaccinated-dying-covid-patients.html "I'm sorry, but it's too late": Alabama doctor on treating unvaccinated, dying COVID patients (328)	http://dlvr.it/S3nbFz World-renowned St. Jude children's hospital tells employees: Get vaccinated or get fired (11)	https://www.al.com/news/2021/07/17/m-sorry-but-its-too-late-alabama-doctor-on-treating-unvaccinated-dying-covid-patients.html "I'm sorry, but it's too late": Alabama doctor on treating unvaccinated, dying COVID patients (178)	https://www.al.com/news/2021/07/17/m-sorry-but-its-too-late-alabama-doctor-on-treating-unvaccinated-dying-covid-patients.html "I'm sorry, but it's too late": Alabama doctor on treating unvaccinated, dying COVID patients (30)
http://Vaccines.gov (483)	https://www.nationalreview.com/2021/07/convincing-the-skeptics/ Convincing the Skeptics (32)	http://NIH.gov (72)	http://dlvr.it/S3nbFz World-renowned St. Jude children's hospital tells employees: Get vaccinated or get fired (318)	https://www.al.com/news/2021/07/17/m-sorry-but-its-too-late-alabama-doctor-on-treating-unvaccinated-dying-covid-patients.html "I'm sorry, but it's too late": Alabama doctor on treating unvaccinated, dying COVID patients (8)	http://Vaccines.gov (103)	http://Vaccines.gov (20)
https://www.inquirer.com/phillies/philadelphia-philies-covid-vaccinated-20210720.html Sources: Almost half of the Phillies roster is unvaccinated for COVID-19 (426)	http://dlvr.it/S3nbFz World-renowned St. Jude children's hospital tells employees: Get vaccinated or get fired (31)	https://twitter.com/reptomasmassie/status/1417036229187678208 Just received this from someone in the military regarding possible compulsory COVID vaccines: "Good evening, Congressman. Just thought I'd pass word that >15% of the officers at my command will either retire early or resign their commissions if the mandate is given." (58)	https://richieallen.co.uk/irish-ice-hockey-star-resigns-in-protest-over-vaccine-passports/ Irish Ice Hockey Star Resigns In Protest Over Vaccine Passports (191)	https://news.yahoo.com/24-year-old-who-needed-double-lung-transplant-wishes-he-d-been-vaccinated-for-covid-19-180810400.html 24-year-old who needed double lung transplant wishes he'd been vaccinated for COVID-19 (5)	http://dlvr.it/S3nbFz World-renowned St. Jude children's hospital tells employees: Get vaccinated or get fired (89)	http://dlvr.it/S3nbFz World-renowned St. Jude children's hospital tells employees: Get vaccinated or get fired (18)
http://dlvr.it/S3nbFz World-renowned St. Jude children's hospital tells employees: Get vaccinated or get fired (394)	https://www.israelnationalnews.com/News/News.aspx/309762?fbclid=IwAR1QVZvOXSjpf5MgPz-y6Hr2ZTXM8wGy4lPc-IkzIFtE5Qhzev4v83a Natural infection vs vaccination: Which gives more protection? (25)	https://www.nationalreview.com/2021/07/convincing-the-skeptics/ Convincing the Skeptics (52)	http://Vaccines.gov (130)	http://Vaccines.gov (4)	https://www.nationalreview.com/2021/07/convincing-the-skeptics/ Convincing the Skeptics (78)	https://www.nationalreview.com/2021/07/convincing-the-skeptics/ Convincing the Skeptics (12)
https://www.nationalreview.com/2021/07/convincing-the-skeptics/ Convincing the Skeptics (355)	https://www.wsl.com/articles/cdc-covid-19-coronavirus-vaccine-side-effects-hospitalization-kids-11626706868 The Filmy Evidence Behind the CDC's Push to Vaccinate Children (25)	http://Vaccines.gov (42)	https://rol.st/3itJGc Eric Clapton Will Not Play Shows Where Proof of Vaccine is Required (108)	https://www.nationalreview.com/2021/07/convincing-the-skeptics/ Convincing the Skeptics (4)	https://twitter.com/reptomasmassie/status/1417036229187678208 Just received this from someone in the military regarding possible compulsory COVID vaccines: "Good evening, Congressman. Just thought I'd pass word that >15% of the officers at my command will either retire early or resign their commissions if the mandate is given." (62)	https://twitter.com/ProfFootballTalk/status/1415705770247733253 To maximize player vaccination rates, NFL and NFLPA should extend a simple offer: Get vaxxed, and don't get tested for marijuana (10)

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9

Top URLs by County July 16 – July 22

Allegheny	Butler	Cambria	Fayette	Lackawanna	Luzerne
https://www.al.com/news/2021/07/17/m-sorry-but-its-too-late-alabama-doctor-on-treating-unvaccinated-dying-covid-patients.html "I'm sorry, but it's too late": Alabama doctor on treating unvaccinated, dying COVID patients (331)	https://www.al.com/news/2021/07/17/m-sorry-but-its-too-late-alabama-doctor-on-treating-unvaccinated-dying-covid-patients.html "I'm sorry, but it's too late": Alabama doctor on treating unvaccinated, dying COVID patients (2)	http://apne.ws/7AaO3ir Fully vaccinated Americans may enter Canada as of mid-August (1)	https://www.al.com/news/2021/07/17/m-sorry-but-its-too-late-alabama-doctor-on-treating-unvaccinated-dying-covid-patients.html "I'm sorry, but it's too late": Alabama doctor on treating unvaccinated, dying COVID patients (2)	https://dailyexpose.co.uk/2021/07/19/vaers-whistleblower-45000-dead-from-covid-19-vaccines-within-3-days-sparks-lawsuit-against-federal-government/ VAERS Whistleblower: "45,000 Dead From Covid-19 Vaccines Within 3 Days of Vaccination", Sparks Lawsuit Against Federal Government (2)	https://www.wsl.com/articles/a-covid-vaccine-crossroads-11626390023 A Covid Vaccine Crossroads You can oppose government mandates but still favor mass vaccination. (2)
http://dlvr.it/S3nbFz World-renowned St. Jude children's hospital tells employees: Get vaccinated or get fired (319)	http://dlvr.it/S3nbFz World-renowned St. Jude children's hospital tells employees: Get vaccinated or get fired (1)	http://Vaccines.gov (1)	https://www.nationalreview.com/2021/07/convincing-the-skeptics/ Convincing the Skeptics (2)	http://dlvr.it/S3nbFz Dr. Sanjay Gupta: The importance of being vaccinated (1)	http://Vaccines.gov (1)
https://richieallen.co.uk/irish-ice-hockey-star-resigns-in-protest-over-vaccine-passports/ Irish Ice Hockey Star Resigns In Protest Over Vaccine Passports (191)	http://Vaccines.gov (1)	https://trib.al/MnTBj3G American Academy of Pediatrics: Everyone Should Be in Masks for School This Fall (1)	http://NIH.gov (1)	http://dlvr.it/S3s6cM Sacramento County recommends masks indoors as delta variant of COVID-19 spreads (1)	http://www.foxnews.com/politics/three-texas-democrats-who-fled-to-washington-d-c-test-positive-for-coronavirus Three Texas Democrats who fled to Washington, D.C. test positive for coronavirus (1)
http://Vaccines.gov (132)	https://cnb.cx/3e0Jq82 Biden on Facebook: "They're killing people" with vaccine misinformation (1)	https://wapo.st/3eAzRoz Sean Hannity's limited vaccine endorsement is a small drop in Fox News's ocean of doubt (1)	https://www.cnn.com/2021/07/19/media/fox-vaccine-passport/index.html Fox has quietly implemented its own version of a vaccine passport while its top personalities attack them (1)	http://dlvr.it/S46KBN Biden clarifies comments about Facebook 'killing people' with vaccine misinformation (1)	https://www.businessinsider.com/fox-news-covid-protocols-vaccination-passport-memo-tucker-carlson-2021-7 Fox News has a strict COVID-19 policy that includes the kind of vaccine passport Tucker Carlson, Laura Ingraham and other right-wing hosts have railed against (1)
https://rol.st/3itJGc Eric Clapton Will Not Play Shows Where Proof of Vaccine is Required (109)	https://www.cbsnews.com/news/aap-mask-recommendations-kids-2-years-covid-vaccine/ Pediatricians group recommends all children over 2 wear masks at school (1)	https://www.cnn.com/2021/07/19/politics/marjorie-taylor-greenes-twitter-ban/index.html Twitter temporarily suspends Rep. Marjorie Taylor Greene for vaccine misinformation (1)	https://www.latimes.com/california/story/2021-07-15/a-county-will-require-masks-indoors-amid-covid-19-surge L.A. County will require masks indoors amid alarming rise in coronavirus cases (1)	https://childrenshealthdefense.org/defense/brianne-dressen-injuries-astazeneca-covid-vaccine-senators-demand-answer/ Woman With 'Life-Altering' Injuries After COVID Vaccine Teams Up With U.S. Senators to Demand Answers (1)	https://www.nationalreview.com/2021/07/convincing-the-skeptics/ Convincing the Skeptics (1)

10

Top Influencers by City July 16 – July 22

□ The top 5 influencers* for each region related to COVID19/vaccines are as follows:

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/Bethlehem	Other
ElectionWiz (media)	KeithOlbermann	GovernorTomWolf (gov)	itsJeffTiedrich	markscheig (reporter)	RightSideRonUSA (antivax)	Acyn
FoxNews (media)	AmandaMarcotte (reporter)	Cleavon_MD	RepThomasMassie (gov)	DBChirpy	WolfGames2021 (antivax)	TheRickWilson
6abc (media)	CNBC (media)	FrankLuntz (gov)	RheaBoydMD (race discourse)	AHNtoday (gov)	Prez215	POTUS (gov)
factcheckdotorg (media)	drcraigwax (antiwax)	BleacherReport (sports media)	HueyPNewton13	BlyntJames	jeremynewberger (reporter)	TuckerCarlson (Fox)
JuliusGoat (celebrity)	YoshkeZoidberg	JamieApody (reporter)	CTWritePretty	berniesbestie	mcall (media)	mtgreenlee (gov)

*influencers are defined as accounts with tweets often spread by others (ordered by out-degree centrality)

1/11/2022



11

Top Influencers by County July 16 – July 22

□ The top 5 influencers* for each region related to COVID19/vaccines are as follows:

Allegheny	Butler	Cambria	Fayette	Lackawanna	Luzerne	Monroe	West Moreland
itsJeffTiedrich	padenpur	onepatriotchick (antivax)	LaBelle50	ResistingRN	doinitright6	DocTooch	WorldofOutlaws
RepThomasMassie (gov)	JDiPaola_Trib (reporter)	msj41817	ShariseJMoore	RobertStock6	nrogers_news (reporter)	CBAC_USA	PooH_Bear2432
RheaBoydMD (race discourse)	TeamDrydene	TDDavidHurst (reporter)	VincentMTiberi	VegHistory	casamato21	tm3rd1	JoshMizikarDZNS
CTWritePretty	CoachD_LBG	SarahforUs (gov)	Irishpatriot386 (antivax)	SharlaMcBride (reporter)	NJDColts	jflorentinord	MCipriani_WTAE
HueyPNewton13	MikeSavPant her	PJRJGMD	mommydog67	thisisdking	KingsCollege_PA	kelseykruck	MeghanKDKA

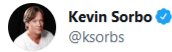
*influencers are defined as accounts with tweets often spread by others (ordered by out-degree centrality)

1/11/2022



12

Top Anti-Vaccine Retweets in PA Tweets



Kevin Sorbo
@ksorbs

Remember to get vaccinated or a vaccinated person might get sick from the virus that they were vaccinated against because you're not vaccinated.

1:35 PM · Jul 20, 2021 · Twitter for iPhone

10.3K Retweets 726 Quote Tweets 42.6K Likes

"The Covid vaccine saves lives, which is why the government is making it free!"

K. So explain to me why insulin and asthma inhalers cost so much money.

If the vaccines are really about the government trying to save your life— why do life-saving medicines cost so much?

4:45 PM · Jul 20, 2021 · Twitter for iPhone

1/11/2022

18.2K Retweets 6,306 Quote Tweets 70.6K Likes

...

You always win when you call things by their true names:

They're COMMUNISTS not "progressives."

They're TRAVEL PERMITS not "vaccine passports."

It's UNIVERSAL HOME DETENTION not "lockdowns."

11:45 AM · Jul 16, 2021 · Twitter for iPhone

1,506 Retweets 54 Quote Tweets 3,559 Likes

1/ URGENT.

@CDCgov has quietly more than DOUBLED the number of #Covid vaccine death reports in VAERS, the federal side effect reporting system.

CDC now says it has received reports of 12,313 deaths following Covid vaccination in the US - compared to under 6,000 last week.



13

Other notes this week

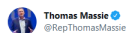
Healthcare professionals on treating un-vaccinated COVID patients:

A top retweet that was then deleted by the sender: "A full 100% of the covid patients in our ICU are anti-vax. Plus, the ways we are talked to and treated are incredibly disrespectful. How do we deal with this? I can't even right now..."

Top shared URL in whole set, re: COVID patients requesting vaccine:

<https://www.al.com/news/2021/07/im-sorry-but-its-too-late-alabama-doctor-on-treating-unvaccinated-dying-covid-patients.html>

Vaccine Refusals in Top URLs



Thomas Massie
@RepThomasMassie

Just received this from someone in the military regarding possible compulsory COVID vaccines:

"Good evening, Congressman. Just thought I'd pass word that >15% of the officers at my command will either retire early or resign their commissions if the mandate is given."

1 of 3

1/11/2022

Opinion

Sources: Almost half of the Phillies roster is unvaccinated for COVID-19 | Marcus Hayes

Owners and management are exasperated as the team approaches the trade deadline with the playoffs within reach — and a COVID shutdown hovering over their season like the sword of Damocles.

Read Irish Ice hockey international's powerful resignation email. Niall McEvoy resigns over Vaccine passports.



14

Pennsylvania: General Conversation

Trending stories:

[al.com](#) 'I'm sorry, but it's too late' Alabama doctor tells unvaccinated, dying COVID patients

[cnn.com](#) Congressional Democrats have a 100% vaccination rate

[rollingstone.com](#) Eric Clapton Will Not Play Shows Where Proof of Vaccine Is Required

[6abc.com](#) Philadelphia again recommends masks for indoor public spaces, regardless of vaccination status

[lincolnpj.com](#) The Lincoln Project: The Lincoln Project Statement on Comcast's Refusal To Air Ad Critical Of Fox News

[theatlantic.com](#) The Only Thing Uniting Unvaccinated People Is That They're Unvaccinated

[nejm.org](#) Effectiveness of Covid-19 Vaccines against the B.1.617.2 (Delta) Variant | NEJM

[rawstory.com](#) Hospitalized right-wing radio host in 'very serious condition' regrets not being 'vehemently pro-vaccine': Family

[nbcnews.com](#) Anti-vaccine groups changing into 'dance parties' on Facebook to avoid detection

[texastribune.org](#) Texas has seen nearly 9,000 COVID-19 deaths since February. All but 43 were unvaccinated people.

Negative stories:

[childrenshealthdefense.org](#) Federal Lawsuit Seeks Immediate Halt of COVID Vaccines, Cites Whistleblower Testimony Claiming CDC Is Under-Counting Vaccine Deaths

[jamesfotzer.org](#) Peter Koenig, Depopulation and the mRNA Vaccine: The New York Times Predicts Massive Population Reduction - James Petzer

[jneurology.com](#) Anthrax and Gulf War Illness (GWI): Evidence for the Presence of Harmful Anthrax Antigen PA63 In the Serum of Veterans with GWI

[ncbi.nlm.nih.gov](#) The Anthrax Vaccine Program: An Analysis of the CDC's Recommendations for Vaccine Use

[openvaers.com](#) COVID Vaccine Landing

[childrenshealthdefense.org](#) CDC 'Corrects' Number of Reported Deaths After COVID Vaccines by Dumping Foreign Reports

[thetriad.thebulwark.com](#) Pick Your Political Poison

[audacy.com](#) Philadelphia Zoo plans to use experimental COVID-19 vaccine to protect its at-risk animals

[childrenshealthdefense.org](#) Sign Up for our Free News and Updates!

[childrenshealthdefense.org](#) Journalist Alex Berenson Tells The Defender: 'They Are Censoring Dissenting Views and That Is Wrong'

[childrenshealthdefense.org](#) Hundreds Injured by COVID Vaccines Turn to GoFundMe for Help With Expenses

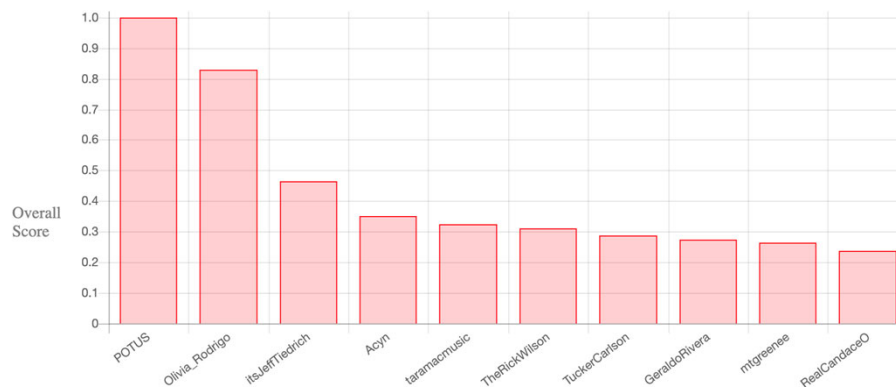
1/11/2022



15

Analysis of Tweeters - Super Spreaders

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



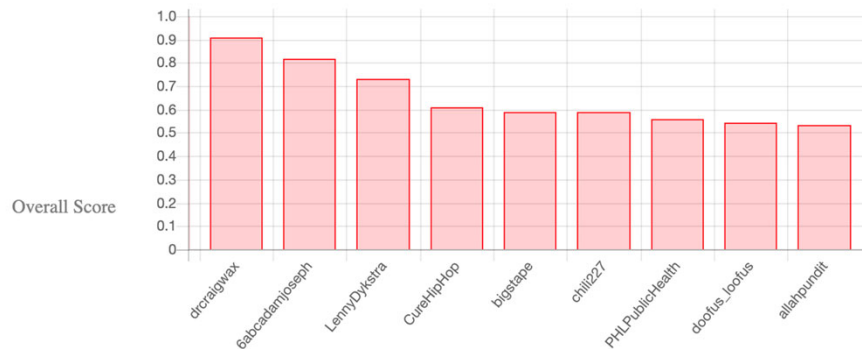
1/11/2022



16

Analysis of Tweeters - Super Friends

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



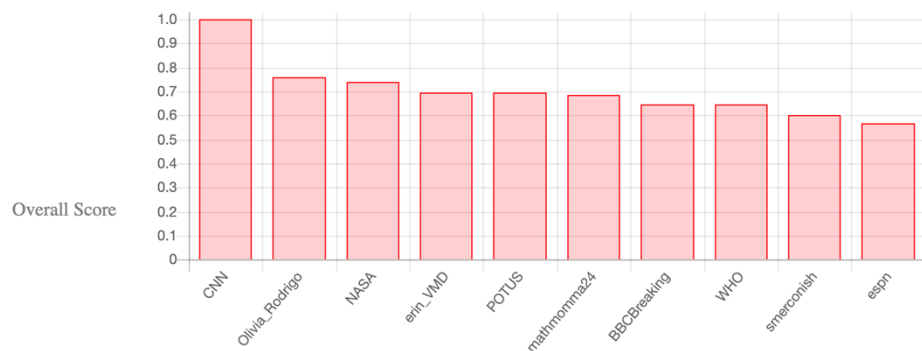
1/11/2022



17

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.



1/11/2022



18

Popular Tweets by Retweet Count

1/11/2022

19 Carnegie Mellon University

Tom Pelissero @tompelissero
 The NFL just informed clubs that if a game cannot be rescheduled during the 18-week season in 2021 due to a COVID outbreak among unvaccinated players, the team with the outbreak will FORFEIT and be credited with a loss for playoff seeding, per sources. Massive implications.
 Negative 10 hours ago 278 Retweets

The Lincoln Project @projectlincoln
 .@Comcast is refusing to air our ad holding Fox News accountable for their anti-vaccine propaganda. They have made clear. Their bottom line comes before anything else — even the health and safety of the American people. <https://t.co/9unxHg5XgF>
 Positive 11 hours ago 118 Retweets

Quan @quandbtalk
 Woke up from my nap and see NFL players talkin bout they ready to retire rather than getting the vaccine because they "standing for something" but when it was time to stand up for Kap them boys talked about how they got mouths to feed and cant miss out on those checks
 Positive 3 hours ago 109 Retweets

Russ Bengtson @russbengtson
 please retweet if you got the COVID vaccine and didn't die, i'm trying to see something
 Neutral an hour ago 91 Retweets

Jemele Hill @jemelehill
 So a vaccine that's proven to be wildly effective and protects people against a potentially deadly virus will get a NFL player to retire but not the threat of imminent brain trauma that they expose themselves to every game. Got it.
 Positive 3 hours ago 86 Retweets

jason c. @netw3rk
 "you can still get covid if you get the vaccine." = "the bullets still hit you if you wear a bulletproof vest."
 Neutral 2 hours ago 74 Retweets

19

Trending Negative Tweets

Robert F. Kennedy Jr. @RobertKennedyJr
 America's Frontline Doctors filed a motion to stop the use of Emergency Use Authorization COVID vaccines for anyone under 18, anyone with natural immunity or anyone who hasn't received informed consent.

 Federal Lawsuit Seeks Immediate Halt of COVID Vaccines, Cites Whistlebl...
 America's Frontline Doctors filed a motion to stop the use of Emergency Use Authorization (EUA) COVID vaccines for anyone under 18, anyone with...
 childrenshealthdefense.org
 2:32 PM · Jul 21, 2021 · TweetDeck
 3,072 Retweets 191 Quote Tweets 6,415 Likes

CBS News @CBSNews
 46-year-old Brandon died six days after contracting COVID. He had told his mom that he wanted to wait before getting the vaccine.
 "I wanted [his friends] to see his ashes. I wanted them to know, 'Look, Brandon is dead because he did not take the vaccine,'" his mother said.

 today when that daily update
 CORONAVIRUS CRISIS
 CASES SURGE ACROSS THE U.S. AS DELTA VARIANT SPREADS
 1:40 | 125.6K views
 9:50 AM · Jul 22, 2021 · SnapStream TV Search
 922 Retweets 105 Quote Tweets 1,867 Likes

1/11/2022

Ion University

20

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- ❑ CASOS website - <http://www.casos.cs.cmu.edu/>

1/11/2022

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