

PA Vaccine Conversations on Twitter

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Vaccine Hesitancy Project Update based on June 10, 2022 – June 16, 2022

The CMU centers for:

Informed DEMocracy And Social cyber-security

Computational Analysis of Social and Organizational Systems



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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.

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Report Overview June 10 – June 16

- ❑ Mandates, masks, racism, natural immunity, and vaccine side effects are trending this week;
- ❑ Trending stories: [washingtonpost.com/health/2022/06/12/pfizer-vaccine-young-children-fda-analysis/](https://www.washingtonpost.com/health/2022/06/12/pfizer-vaccine-young-children-fda-analysis/) Pfizer-BioNTech shot for children under 5 safe and effective, FDA staff says; apnews.com/article/bdd0fae8b6a45ed786d8891049ca606a Biden vows to battle inflation as prices keep climbing; ctvnews.ca/health/coronavirus/moderna-covid-19-vaccine-may-pose-higher-heart-inflammation-risk-cdc-1.5945928 Moderna COVID-19 vaccine may pose higher heart inflammation risk: CDC;
- ❑ Anti-vax, disinformation, and vaccine hesitancy stories: odysee.com/@MaajidNawaz:d/EP8-Radical:9 On Pfizer's Former Global Head of Respiratory Diseases, the Whistleblower Dr Mike Yeadon; alexberenson.substack.com/p/urgent-omg-the-pfizer-data-for-kids/comments URGENT: OMG the Pfizer data for kids under 5; nejm.org/doi/full/10.1056/NEJMoa2118946 Protection and Waning of Natural and Hybrid Immunity to SARS-CoV-2; childrenshealthdefense.org/defender/covid-vaccine-pediatric-immunization-schedule-cola Is Push to Vaccinate Young Kids a Ploy by Pharma to Get COVID Shot on Pediatric Immunization Schedule?; bit.ly/3tyXmpw Doug Ford's daughter suggests Justin Bieber's illness is somehow vaccine-related; childrenshealthdefense.org/defender/fda-pfizer-moderna-skip-trials-covid-vaccines Will FDA Allow Pfizer, Moderna to Skip Clinical Trials for Future COVID Vaccines?; beforeitsnews.com/health/2022/06/scientific-journalism-is-deadhuman-dna-has-been-poisoned-by-the-jab-an-evil-beyond-comprehensionaborted-fetal-tissue-in-your-food-kraft-pepsico-nestle-and-more-7-years-ago-on-x-files-3045780.html Dolores Cahill: The Vaccinated Will Die in 3 to 5 Years, One Jab Is Enough..; childrenshealthdefense.org/defender/fda-covid-vaccine-kids-trial-data FDA Set to Decide on Pfizer's COVID Shots for Kids Under 5 Based on 'Unethical' Trial Data;
- ❑ Popular anti-vax tweets: WATCH NOW FREE The latest "Radical - with @MaajidNawaz" exclusive to @OdyseeTeam Ep8 - On Pfizer Whistleblower, Former global Head of Respiratory Diseases, Dr Mike Yeadon <https://t.co/fka9ccVig>; I believe that employers who have mandated employees be vaccinated, will eventually be sued. Who agrees?; Breaking News: Anthony Fauci has COVID He's octuple vaccinated and quadruple masked, and yet the 'rona still found a way. SCIENCE!

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Countering disinformation June 10 – June 16

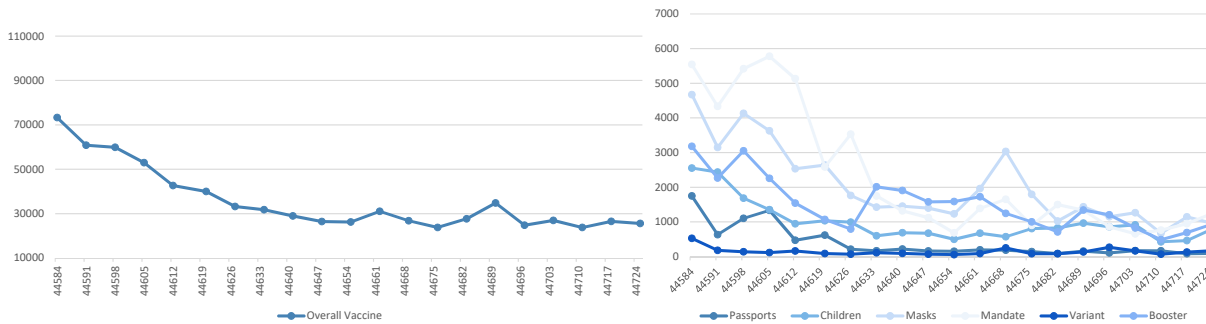
- ❑ From VCTR Project: Pennsylvania-Based Scientist's Blog Claims FDA Used Unreliable Data For Approval Of Vaccines For Children Under 5.
Background: Pennsylvania-based blogger and scientist James Lyons-Weiler, known to spread COVID-19 and vaccine misinformation, published a post on his Substack on June 11 claiming that the FDA used "unreliable and inconsistent data" to "justify" approval of the vaccine for children under 5 years old.
Reactions: The blog post trended in New Hampshire and has received 2,000 mentions on Twitter and Facebook. On Twitter, in response to the blog post, one person said: "Peter Marks [of the FDA] has to go... before he decimates the health of U.S toddlers w/o awake parents."
- ❑ Fact Check: Sudden Adult Death Syndrome is not caused by COVID-19 vaccines: <https://theparadise.ng/fact-check-sudden-adult-death-syndrome-is-caused-by-covid-19-vaccines/>
Recent social media posts have claimed that "Sudden Adult Death Syndrome" is caused by COVID-19 vaccines. The captions of these posts state how it is harmful to get vaccinated. Some of these posts contained links to articles about how young people die from the syndrome. However, none of the articles suggested the deaths were a result of COVID-19 vaccines.
- ❑ There is no link between Bieber's facial paralysis and COVID-19 vaccine
<https://factcheck.afp.com/doc.afp.com.32CP2NB>

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Trends (tweets per week) June 10 – June 16



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High Level View by City June 10 – June 16

	Total PA	Philadelphia		Pittsburgh		Erie		Allentown/Bethlehem		Other	
Conversation	Tweets	Tweets	%	Tweets	%	Tweets	%	Tweets	%	Tweets	%
Overall Vaccine	21811	11486	52.7%	6857	31.4%	142	0.7%	2222	10.2%	1104	5.1%
Vaccine Passports	92	60	0.5%	18	0.3%			11	0.5%	3	0.3%
FDA Approval	129	71	0.6%	36	0.5%	2	1.4%	13	0.6%	7	0.6%
Boosters	512	230	2.0%	159	2.3%	4	2.8%	89	4.0%	30	2.7%
Employees	470	422	3.7%	24	0.4%			22	1.0%	2	0.2%
"Experimental"	75	41	0.4%	16	0.2%	1	0.7%	15	0.7%	2	0.2%
Children	536	292	2.5%	130	1.9%	7	4.9%	84	3.8%	23	2.1%
Myocarditis	113	55	0.5%	36	0.5%	1	0.7%	16	0.7%	5	0.5%
Heart	265	141	1.2%	80	1.2%	3	2.1%	34	1.5%	7	0.6%
Masks	946	463	4.0%	261	3.8%	6	4.2%	96	4.3%	120	10.9%
Thrombosis/VITT	31	17	0.1%	12	0.2%			2	0.1%		
Mandates	1116	844	7.3%	142	2.1%	2	1.4%	107	4.8%	21	1.9%
Natural Immunity	227	154	1.3%	41	0.6%	1	0.7%	25	1.1%	6	0.5%
Efficacy	117	60	0.5%	30	0.4%	2	1.4%	17	0.8%	8	0.7%
Omicron	172	93	0.8%	33	0.5%			37	1.7%	9	0.8%
Delta Variant	90	52	0.5%	17	0.2%			9	0.4%	12	1.1%
Race	775	471	4.1%	194	2.8%	2	1.4%	68	3.1%	40	3.6%
Ivermectin	18	8	0.1%	4	0.1%			3	0.1%	3	0.3%
Military	62	36	0.3%	15	0.2%			11	0.5%		
Breakthrough	12	7	0.1%	2	0.0%			2	0.1%	1	0.1%

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- Conversation topics trending this week over last
 - Mandates - employee
 - Natural Immunity
 - Boosters

High Level View by County June 10 – June 16

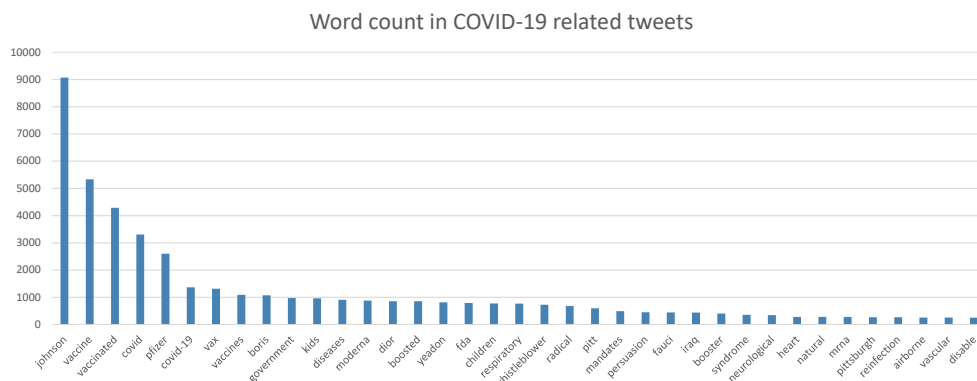
County	Allegheny	Beaver	Butler	Cambria	Fayette	Indiana	Somerset	Westmoreland
Overall Vaccine	7059	34	16	7	3	6	2	56
Vaccine Passports	18					3		
FDA	36	1						
Boosters	161	2		1				2
Employees	24							
"Experimental"	16							
Children	137	1		1				1
Myocarditis	36							
Heart	80							
Masks	279	1	2	2				1
Thrombosis/VITT	12							
Mandates	145					3		2
Natural Immunity	41							
Efficacy	30	1						
Omicron	33							
Delta Variant	21		1					
Race	201							3
Ivermectin	4							
Military	15							
Breakthrough	2							

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

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Top Words Used per Week June 10 – June 16



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Top Hashtags by County June 10 – June 16

- ❑ 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	Fayette	West Moreland
pfizer (227)	pfizer (1)	novaccinemandates (3)	covid (1)
longcovid (70)	pfizerdocuments (1)		persuasion (1)
h2p (65)	vaccinedeaths (1)		pfizer (1)
pitt (65)	vaccineinjuries (1)		uncommoncourage (1)
vaccinesideeffects (62)	covid19 (1)		vaccineinjuries (1)

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Top Hashtags by City June 10 – June 16

- ❑ 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 (347)	pfizer (24)	ehcr (136)	pfizer (226)	pfizer (13)	pfizer (95)	pfizer (37)
longcovid (160)	covid19 (7)	pfizer (86)	steelers (182)	crimesagainsthumanity (5)	vaccineinjuries (43)	covid_19 (17)
vaccineinjuries (129)	vaccineinjuries (7)	longcovid (32)	longcovid (68)	maga (4)	pfizer (32)	vaccine (16)
covid19 (115)	omicron (6)	covid19 (25)	covidvaccine (63)	vaccinesideeffects (3)	covid (28)	h2p (9)
vaccinesideeffects (100)	fda (5)	covidvaccine (22)	vaccinesideeffects (62)	arrestbourla (2)	vaccinesideeffects (28)	vaccineinjuries (8)

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Top URLs by County June 10 – June 16

Allegheny	Butler + Beaver	Indiana	West Moreland
mirror.co.uk/news/politics/boris-johnson-shelves-free-school-meals-27210879 Boris Johnson shelves free school meals for up to a million kids in 'thin gruel' food plan (170)	popularrationalism.substack.com/p/fda-caught-creating-and-using-unreliable FDA Caught Creating and Using Unreliable and Inconsistent Data to Create An Illusion of COVID-19 Vaccine Efficacy as They Attempt to Justify Approval for Use in Infants and Toddlers (1)	yummydoctor.com/video-list/lets-compare-the-vaccinated-to-the-unvaccinated Let's Compare the Vaccinated to the Unvaccinated (1)	health-desk.org/articles/what-is-sudden-adult-death-syndrome What is Sudden Adult Death Syndrome? (1)
washingtonpost.com/health/2022/06/12/pfizer-vaccine-young-children-fda-analysis/ Pfizer-BioNTech shot for children under 5 safe and effective, FDA staff says (21)	redvoicemedia.com/video/2022/06/mass-depopulation-according-to-pfizer-document-leak-proves-vaccine-is-causing-die-off-video MASS DEPOPULATION According To PFIZER! – Document Leak PROVES Vaccine Is Causing Die Off! (1)		newsroom.ucla.edu/releases/low-covid-flu-vaccine-rates Factors causing low COVID vaccination rates have spilled over to flu vaccine rates in parts of U.S. (1)
apnews.com/article/bdd0fae8b6a45ed786d8891049ca606a Biden vows to battle inflation as prices keep climbing (15)	chc.ca/1.6488917 What's the monkeypox vaccine and who should get it? (1)		finance.yahoo.com/news/1-moderna-covid-vaccine-may-124910732.html UPDATE 4-U.S. FDA advisers overwhelmingly back Moderna COVID vaccine for ages 6-17 (1)
alexberenson.substack.com/p/urgent-omg-the-pfizer-data-for-kids/comments URGENT: OMG the Pfizer data for kids under 5 (14)	wtat.com/article/fda-finds-modernas-covid-19-vaccine-is-safe-younger-kids/40263438 FDA finds Moderna, Pfizer COVID-19 vaccines are safe and effective in younger kids (1)		
nejm.org/doi/full/10.1056/NEJMoa2118946 Protection and Waning of Natural and Hybrid Immunity to SARS-CoV-2 (14)			

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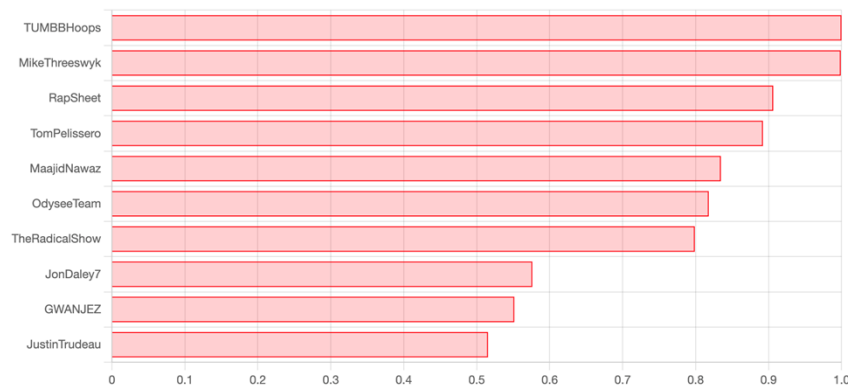


Top URLs by City June 10 – June 16

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/ Bethlehem	Other
odysee.com/@MaajidNawaz:d/EP8-Radical-9 On Pfizer's Former Global Head of Respiratory Diseases, the Whistleblower Dr Mike Yeadon (651)	ctvnews.ca/health/coronavirus/moderna-covid-19-vaccine-may-pose-higher-heart-inflammation-risk-cdc-15945928 Moderna COVID-19 vaccine may pose higher heart inflammation risk: CDC (21)	beforeitsnews.com/health/2022/06/scientific-journalism-is-dead-human-dna-has-been-poisoned-by-the-lab-an-evil-beyond-comprehension-aborted-fetal-tissue-in-your-food-kraft-pepsico-nestle-and-more-7-years-ago-on-x-files-3045780.html Dolores Cahill: The Vaccinated Will Die in 3 to 5 Years, One Jab Is Enough... (5)	washingtonpost.com/health/2022/06/12/pfizer-vaccine-young-children-fda-analysis/ Pfizer-BioNTech shot for children under 5 safe and effective, FDA staff says (21)	childrenshealthdefense.org/defender/fda-covid-vaccine-kids-trial-data FDA Set to Decide on Pfizer's COVID Shots for Kids Under 5 Based on 'Unethical' Trial Data (2)	foxnews.com/politics/maxine-waters-tests-positive-covid-summit-americas Rep. Maxine Waters tests positive for COVID for second time this year after attending Summit of the Americas (7)	evanhospital.com/virus Coronavirus Update (5)
childrenshealthdefense.org/defender/covid-vaccine-pediatric-immunization-schedule-cola Is Push to Vaccinate Young Kids a Ploy by Pharma to Get COVID Shot on Pediatric Immunization Schedule? (95)	twitter.com/1/broadcasts/1vOGxyoVed8B THE IMMUNE COMPROMISE DeSantis Makes Special Olympics Withdraw Mandate; First SIDS, Now SADS; Vaccinated Portugal Vs. Unvaccinated S. Africa; Canada Unhinged; Scientists Can't ignore The Immune Compromise (9)	fda.gov/media/159195/download FDA Briefing Document (5)	apnews.com/article/bdd0fae8b6a45ed786d8891049ca606a Biden vows to battle inflation as prices keep climbing (15)	abcnews.go.com/Health/wireStory/us-buys-monkeypox-vaccine-global-case-count-grows-85315246 US buys more monkeypox vaccine as global case count grows (1)	alexberenson.substack.com/p/urgent-omg-the-pfizer-data-for-kids/comments URGENT: OMG the Pfizer data for kids under 5 (6)	odysee.com/@MaajidNawaz:d/EP8-Radical-9 On Pfizer's Former Global Head of Respiratory Diseases, the Whistleblower Dr Mike Yeadon (5)
nejm.org/doi/full/10.1056/NEJMoa2118946 Protection and Waning of Natural and Hybrid Immunity to SARS-CoV-2 (49)	nbcnews.com/health/health-news/fauci-tests-positive-covid-19-rcna33787 Dr. Anthony Fauci tests positive for Covid (4)	nejm.org/doi/full/10.1056/NEJMoa2118946 Protection and Waning of Natural and Hybrid Immunity to SARS-CoV-2 (5)	alexberenson.substack.com/p/urgent-omg-the-pfizer-data-for-kids/comments URGENT: OMG the Pfizer data for kids under 5 (14)	apnews.com/HPKsji New vaccine may be option for troops with religious concerns (1)	thenationalpulse.com/2022/06/09/fda-sued-over-hiding-records-from-moderna-covid-19-vaccine-approval FDA Sued Over Hiding Records From Moderna COVID-19 Vaccine Approval (6)	nejm.org/doi/full/10.1056/NEJMoa2118946 Protection and Waning of Natural and Hybrid Immunity to SARS-CoV-2 (5)
bit.ly/3tvXmpe Doug Ford's daughter suggests Justin Bieber's illness is somehow vaccine-related (31)	odysee.com/@MaajidNawaz:d/EP8-Radical-9 On Pfizer's Former Global Head of Respiratory Diseases, the Whistleblower Dr Mike Yeadon (4)	washingtonpost.com/health/2022/06/12/pfizer-vaccine-young-children-fda-analysis/ Pfizer-BioNTech shot for children under 5 safe and effective, FDA staff says (5)	nejm.org/doi/full/10.1056/NEJMoa2118946 Protection and Waning of Natural and Hybrid Immunity to SARS-CoV-2 (14)	bioprocessonline.com/doc/what-is-next-for-covid-vaccines-with-tonix-pharmaceuticals-seth-lederman-m-d-0002 What's Next For COVID Vaccines With Tonix Pharmaceuticals' Seth Lederman, M.D. (1)	buff.ly/3ss50hh The irony — and ignominy — of medical conferences as superspreader events (4)	childrenshealthdefense.org/defender/fda-covid-vaccine-kids-trial-data FDA Set to Decide on Pfizer's COVID Shots for Kids Under 5 Based on 'Unethical' Trial Data (4)
childrenshealthdefense.org/defender/fda-pfizer-moderna-skip-trials-covid-vaccines Will FDA Allow Pfizer, Moderna to Skip Clinical Trials for Future COVID Vaccines? (24)	datascience.com/post/why-it-was-infeasible-for-the-phase-3-vaccine-trials-to-use-all-cause-deaths-as-the-endpoint Why it was infeasible for the phase 3 vaccine trials to use "all cause deaths" as the endpoint (3)	odysee.com/@MaajidNawaz:d/EP8-Radical-9 On Pfizer's Former Global Head of Respiratory Diseases, the Whistleblower Dr Mike Yeadon (4)	tohyrogers.substack.com/p/the-sole-purpose-of-the-moderna-and The sole purpose of the Moderna and Pfizer mRNA shots in kids is to eliminate the control group. There are no health benefits, only harms (13)	ctvnews.ca/health/coronavirus/moderna-covid-19-vaccine-may-pose-higher-heart-inflammation-risk-cdc-15945928 Moderna COVID-19 vaccine may pose higher heart inflammation risk: CDC (1)	canwetalkaboutit.org A campaign to help people who are suffering from COVID-19 vaccine injuries (4)	newsroom.ucla.edu/releases/low-covid-flu-vaccine-rates Factors causing low COVID vaccination rates have spilled over to flu vaccine rates in parts of U.S. (3)

Analysis of Tweeters - Super Spreaders

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

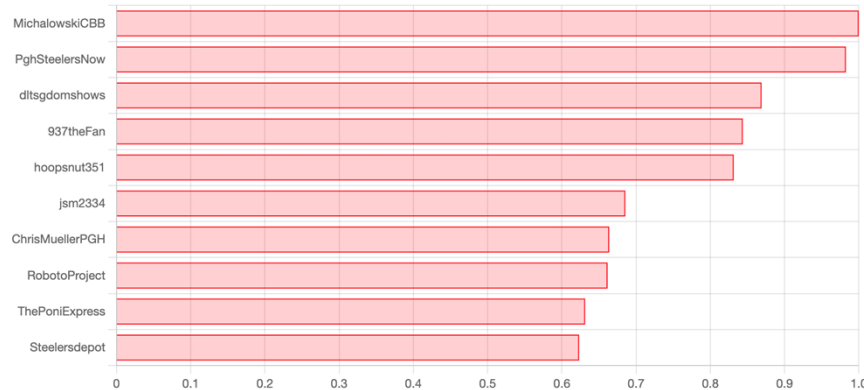


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Analysis of Tweeters - Super Friends

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

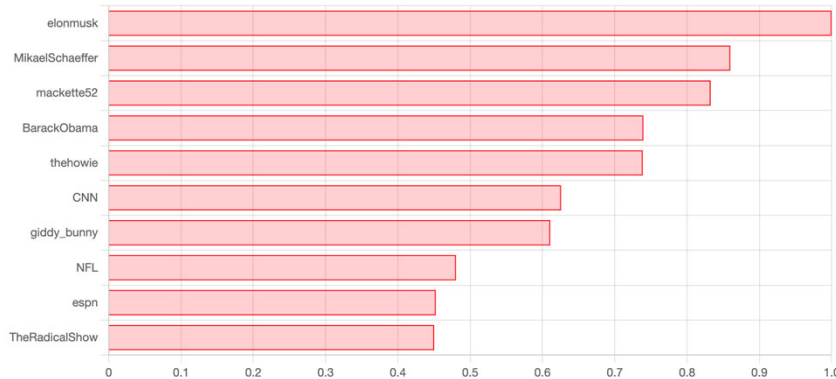


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Analysis of Tweeters - Other Influencers

- 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.



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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
MaajidNawaz[+]	676
OdyseeTeam	669
pfizer[+]	269
egeofanatolia	200
kingKwabenaGH	173
3DiorJohnson	169
US_FDA[+]	144
ochocinco[+]	137
ClayTravis[+]	124
jeremysaul	124
MaajidNawaz[+]	676
OdyseeTeam	669
pfizer[+]	269

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Trending Tweets June 10 – June 16

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

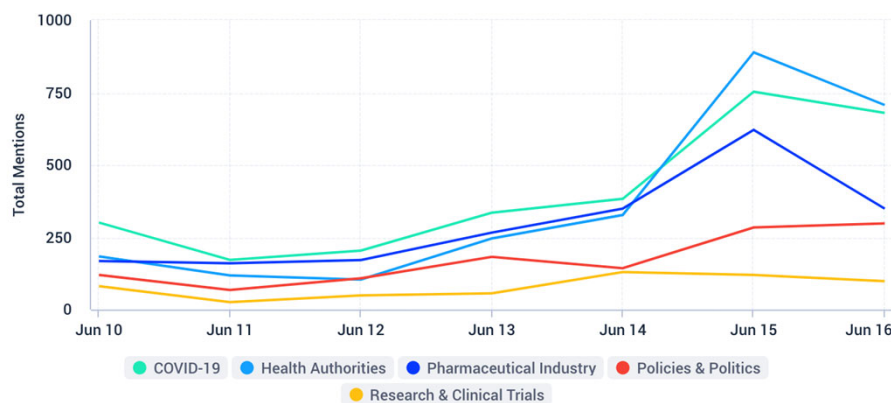
- ❑ WATCH NOW FREE The latest "Radical - with @MaajidNawaz" exclusive to @OdyseeTeam Ep8 - On Pfizer Whistleblower, Former global Head of Respiratory Diseases, Dr Mike Yeadon <https://t.co/fka9ccjVig>
- ❑ Never Forget, 19 year old LaVena Johnson who was found in her tent in Iraq in 2005. She had a broken nose, black eye, loose teeth, burns from a corrosive chemical on her genitals to cover evidence of rape, and a gunshot wound. The U.S. government ruled her death was a 'suicide.' <https://t.co/v1Hw3cQqPu>
- ❑ I believe that employers who have mandated employees be vaccinated, will eventually be sued. Who agrees?
- ❑ There's always the one that got away. Dakota Johnson, Cosmo Jarvis and Henry Golding star in Persuasion. July 15. <https://t.co/pWllkPmH>
- ❑ I've tested positive for COVID-19. I'll be following public health guidelines and isolating. I feel okay, but that's because I got my shots. So, if you haven't, get vaccinated - and if you can, get boosted. Let's protect our healthcare system, each other, and ourselves.
- ❑ The general public doesn't seem to know that Covid is airborne, that reinfection is common, that the vaccinated can get it, that Covid is a vascular disease with serious neurological complications possible, that #LongCovid is common and can disable anyone including the vaxed.
- ❑ "I like dark humor" = weirdo
- ❑ Boris Johnson shelves free school meals for up to a million kids in 'thin gruel' food plan <https://t.co/l0dxhCSbg6>
- ❑ Boris Johnson's grandfather, James Fawcett, was a lawyer: he helped draft the UN Declaration of Human Rights & was a member of the #EHCR from 1962-1984, serving as its President 1972-1981. I wonder what he'd think of Johnson's attempts to undermine his life's work?
- ❑ The anti-vaxx crowd's favorite talking point these days, "Why are vaxxed and boosted people getting Covid multiple times?!" is such a spectacular self-own. They're getting it multiple times because they're not dying the first time, my dudes. That means it's working.
- ❑ Breaking News: Anthony Fauci has COVID He's octuple vaccinated and quadruple masked, and yet the 'rona still found a way.

SCIENCE!

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General PA Conversation June 10 – June 16



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Negative Hashtag Cloud June 10 – June 16



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Trending Posts on Facebook June 10 – June 16



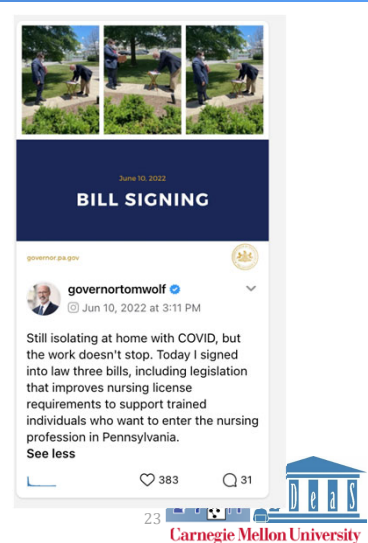
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Trending Posts on Instagram June 10 – June 16



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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%20Center)
- ❑ Ask to be on our Email-Distro Lists

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