

PA Vaccine Conversations on Twitter

Dr. Iuliia Alieva, Dawn Robertson, Dr. Kathleen M. Carley
Vaccine Hesitancy Project Update based on June 17, 2022 – June 23, 2022

The CMU centers for:

Informed DEMocracy And Social cyber-security

Computational Analysis of Social and Organizational Systems



Carnegie Mellon University



7/12/2022

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.

7/12/2022



2

Report Overview June 17 – June 23

- ❑ COVID-19 vaccine for children, myocarditis, and vaccine side effects are trending this week;
- ❑ Trending stories: bit.ly/3zRIZRn CDC Recommends COVID-19 Vaccines for Young Children; twitter.com/CDCgov/status/1538241392471851008 CDC accepted the Advisory Committee on Immunization Practices' (ACIP) recommendation that children ages 6 months and older should be vaccinated against #COVID19; apple.news/A8LMcTKpSbaxDvRkhwTA FDA authorizes Pfizer and Moderna Covid vaccines for infants, toddlers, and preschoolers; fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-moderna-and-pfizer-biontech-covid-19-vaccines-children Coronavirus (COVID-19) Update: FDA Authorizes Moderna and Pfizer-BioNTech COVID-19 Vaccines for Children Down to 6 Months of Age; politico.com/news/2022/06/16/desantis-covid-vaccine-florida-kids-fda-00040191 DeSantis says Florida is 'affirmatively against' Covid-19 vaccines for young kids;
- ❑ 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; thepostmillennial.com/breaking-biden-wants-money-to-fend-off-the-second-pandemic-says-all-american-babies-should-get-covid-vax BREAKING: Biden wants money 'to fend off the second pandemic', says all American babies should get Covid vax; onlinelibrary.wiley.com/doi/10.1111/andr.13209 Covid-19 vaccination BNT162b2 temporarily impairs semen concentration and total motile count among semen donors; bit.ly/3tyXmpw Doug Ford's daughter suggests Justin Bieber's illness is somehow vaccine-related; sharvattkisson.com/2022/06/republicans-question-cdc-and-fda-on-their-ok-for-covid-19-vaccine-for-toddlers-and-babies Republicans question CDC and FDA on their ok for Covid-19 vaccine for toddlers and babies; thecheckersubstack.com/p/fda-panel-ignores-red-flags-in-covid-fda-panel-ignores-red-flags-in-covid-vaccine-data-recommends-jabs-for-very-young-children FDA Panel Ignores Red Flags in Covid Vaccine Data, Recommends Jabs for 'Very Young' Children; dailysceptic.org/2022/06/22/covid-vaccines-more-likely-to-put-you-in-hospital-than-keep-you-out-bmi-editors-analysis-of-pfizer-and-moderna-trial-data-finds Covid Vaccines More Likely to Put You in Hospital Than Keep You Out, BMI Editor's Analysis of Pfizer and Moderna Trial Data Finds; dailysceptic.org/2022/06/17/re-evaluation-of-pfizer-trial-data-shows-zero-efficacy-say-experts Re-evaluation of Pfizer Trial Data Shows Zero Efficacy, Say Experts; childrenshealthdefense.org/defender/hayley-lopez-pfizer-covid-vaccine-injury-air-traffic-controller Exclusive: 29-Year-Old's Career Came 'Crashing' Down After Pfizer COVID Vaccine Injury;
- ❑ 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/fka9cclVig>; I asked, "Can you tell me if anyone on the vaccine approval committees ever received money from the people who make vaccines?" Fauci : "People who receive royalties are not required to divulge them." <https://t.co/a0YIm2ifvZ>; BIDEN: "We need more money. We don't just need more money for vaccines for children, we need more money to plan for the second pandemic. There's gonna be another pandemic." <https://t.co/THFuFlKss6>; FDA official Dr. Peter Marks says vaccinated kids have a 5 fold increase of myocarditis. Why on earth are they pushing the COVID vaccine on babies? We still don't know the long-term safety profile of these vaccines. <https://t.co/Ya3idR3zRL>; "When people are vaccinated, they can feel safe that they are not going to get infected." — Fauci He just tested positive for Covid <https://t.co/kRBDlpm24F>

7/12/2022



Countering disinformation June 17 – June 23

- ❑ This week, we see an extremely high number of vaccine hesitancy and disinformation stories without the presence of substantial counter-narratives;
- ❑ The study about lowering sperm quality after COVID-19 has been circulated this week. Here is a fact-checking story about the issues with the study interpretations: <https://www.newsweek.com/fact-check-covid-vaccines-lower-sperm-quality-count-pfizer-1718068>. The authors stressed that rather than being concerning, their results "confirm previous reports regarding vaccines' overall safety and reliability despite minor short-term side effects." Another story about this claim: <https://leadstories.com/hoax-alert/2022/06/fact-check-no-long-term-impact-on-sperm-production-from-pfizer-covid-vaccination.html> No Long-Term Impact On Sperm Production From Pfizer COVID Vaccination -- Sperm Count Also Drops After Viral Infection;
- ❑ Another popular disinformation claim states that COVID-19 vaccines increase the risk of actual infection. This Reuters story debunks the claim <https://www.reuters.com/article/factcheck-study-antibodies-idUSL1N2XN1HO> Fact Check-Pre-print study did not find COVID-19 vaccines 'hurt long-term immunity' to COVID-19 after infection; one more fact-checking story <https://leadstories.com/hoax-alert/2022/06/fact-check-official-study-does-not-confirm-covid-shots-increase-risk-of-infection.html> Official Study 'Does NOT Confirm COVID Shots' INCREASE Risk Of Infection' -- 'Vaccines Protect';
- ❑ It is necessary to ensure that fact-checking links are widely shared. The suggestion is to promote them via social media communication; also through partnerships with local organizations and communities who would share this information or similar fact-checking details from journalists and researchers in the media.

7/12/2022



Priority by the number of shares of the disinformation and anti-vax stories

- ❑ odysee.com/@MaajidNawaz:d/EP8-Radical:9 On Pfizer's Former Global Head of Respiratory Diseases, the Whistleblower Dr Mike Yeadon (534) – this story was also detected in the previous report
- ❑ onlinelibrary.wiley.com/doi/10.1111/andr.13209 Covid-19 vaccination BNT162b2 temporarily impairs semen concentration and total motile count among semen donors (99)
- ❑ bit.ly/3tyXmpw Doug Ford's daughter suggests Justin Bieber's illness is somehow vaccine-related (45) - this story was also detected in the previous report
- ❑ sharylattkisson.com/2022/06/republicans-question-cdc-and-fda-on-their-ok-for-covid-19-vaccine-for-toddlers-and-babies Republicans question CDC and FDA on their ok for Covid-19 vaccine for toddlers and babies (29)
- ❑ thekylebecker.substack.com/p/fda-panel-ignores-red-flags-in-covid FDA Panel Ignores Red Flags in Covid Vaccine Data, Recommends Jabs for 'Very Young' Children
- ❑ dailysceptic.org/2022/06/22/covid-vaccines-more-likely-to-put-you-in-hospital-than-keep-you-out-bmj-editors-analysis-of-pfizer-and-moderna-trial-data-finds Covid Vaccines More Likely to Put You in Hospital Than Keep You Out, BMJ Editor's Analysis of Pfizer and Moderna Trial Data Finds (8)

7/12/2022



Priority by the projected impact of the disinformation and anti-vax stories

- ❑ dailysceptic.org/2022/06/17/re-evaluation-of-pfizer-trial-data-shows-zero-efficacy-say-experts Re-evaluation of Pfizer Trial Data Shows Zero Efficacy, Say Experts (3)
- ❑ sharylattkisson.com/2022/06/republicans-question-cdc-and-fda-on-their-ok-for-covid-19-vaccine-for-toddlers-and-babies Republicans question CDC and FDA on their ok for Covid-19 vaccine for toddlers and babies (29)
- ❑ thekylebecker.substack.com/p/fda-panel-ignores-red-flags-in-covid FDA Panel Ignores Red Flags in Covid Vaccine Data, Recommends Jabs for 'Very Young' Children
- ❑ odysee.com/@MaajidNawaz:d/EP8-Radical:9 On Pfizer's Former Global Head of Respiratory Diseases, the Whistleblower Dr Mike Yeadon (534) – this story was also detected in the previous report
- ❑ onlinelibrary.wiley.com/doi/10.1111/andr.13209 Covid-19 vaccination BNT162b2 temporarily impairs semen concentration and total motile count among semen donors (99)

7/12/2022



Measures for countering health disinformation

- ❑ Anti-vaccine narratives are still highly active on Twitter, 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.")

7/12/2022



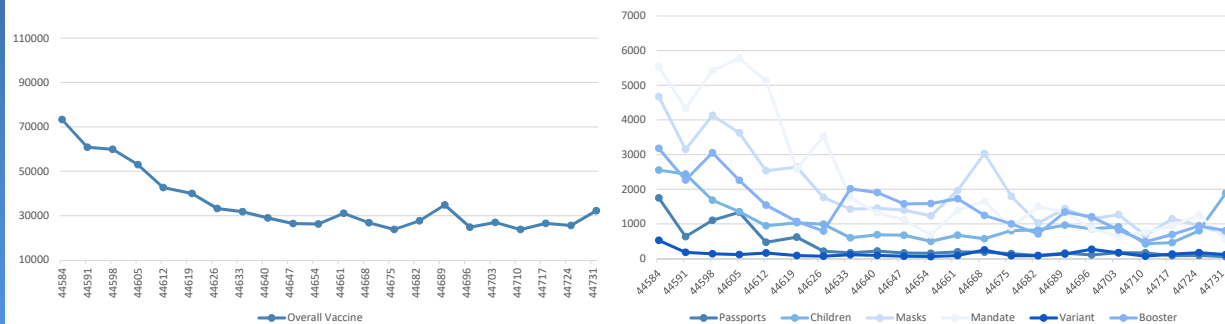
Measures for countering health disinformation

- ❑ 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.

7/12/2022



Trends (tweets per week) June 17 – June 23



7/12/2022



High Level View by City June 17 – June 23

	Total PA	Philadelphia		Pittsburgh		Erie		Allentown/Bethlehem		Other	
Conversation	Tweets	Tweets	%	Tweets	%	Tweets	%	Tweets	%	Tweets	%
Overall Vaccine	27154	13420	49.4%	8678	32.0%	277	1.0%	3470	12.8%	1309	4.8%
Vaccine Passports	57	27	0.2%	18	0.2%			12	0.3%		
FDA Approval	121	54	0.4%	34	0.4%	2	0.7%	20	0.6%	11	0.8%
Boosters	402	200	1.5%	116	1.3%	4	1.4%	63	1.8%	19	1.5%
Employees	57	29	0.2%	14	0.2%	1	0.4%	9	0.3%	4	0.3%
"Experimental"	90	41	0.3%	29	0.3%	1	0.4%	16	0.5%	3	0.2%
Children	1510	770	5.7%	423	4.9%	14	5.1%	235	6.8%	68	5.2%
Myocarditis	620	470	3.5%	80	0.9%	2	0.7%	59	1.7%	9	0.7%
Heart	258	130	1.0%	74	0.9%	6	2.2%	42	1.2%	6	0.5%
Masks	693	369	2.7%	168	1.9%	10	3.6%	53	1.5%	93	7.1%
Thrombosis/VITT	30	10	0.1%	8	0.1%			7	0.2%	5	0.4%
Mandates	546	286	2.1%	137	1.6%	2	0.7%	87	2.5%	34	2.6%
Natural Immunity	160	74	0.6%	58	0.7%			22	0.6%	6	0.5%
Efficacy	117	54	0.4%	26	0.3%	3	1.1%	23	0.7%	11	0.8%
Omicron	96	55	0.4%	28	0.3%	1	0.4%	10	0.3%	2	0.2%
Delta Variant	70	42	0.3%	13	0.1%			3	0.1%	12	0.9%
Race	517	273	2.0%	157	1.8%	4	1.4%	56	1.6%	27	2.1%
Ivermectin	8	4	0.0%	3	0.0%			1	0.0%		
Military	106	47	0.4%	32	0.4%	1	0.4%	23	0.7%	3	0.2%
Breakthrough	12	4	0.0%	3	0.0%	1	0.4%	4	0.1%		

7/12/2022

- Conversation topics trending this week over last
 - Children's vaccines
 - Myocarditis



High Level View by County June 17 – June 23

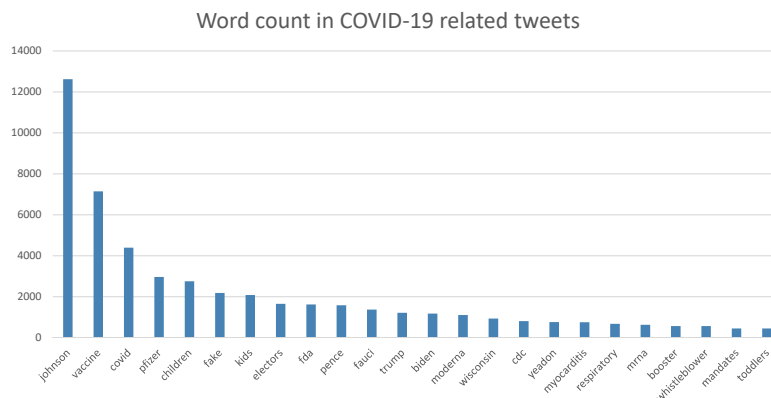
County	Allegheny	Beaver	Butler	Cambria	Fayette	Indiana	Somerset	Westmoreland
Overall Vaccine	8891	35	31	11	11	5	5	27
Vaccine Passports	18							
FDA	37							
Boosters	119		4					
Employees	14							
"Experimental"	30							
Children	434		1	1	1			
Myocarditis	82				1			
Heart	75							
Masks	184							4
Thrombosis/VITT	8		1					
Mandates	142	1						4
Natural Immunity	59							
Efficacy	29							
Omicron	29							
Delta Variant	16		1					
Race	160	1	1					
Ivermectin	3							
Military	33							
Breakthrough	3							

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

7/12/2022



Top Words Used per Week June 17 – June 23



7/12/2022



Top Hashtags by County June 17 – June 23

- ❑ 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	Fayette
covid19 (186)	thisispoliticsnotscience (1)
canwetalkaboutit (41)	
covidvaccine (40)	
pfizer (34)	
vaccineinjured (27)	

7/12/2022



Top Hashtags by City June 17 – June 23

- ❑ 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 (211)	covid19 (27)	covidvaccine (34)	covid19 (186)	bluevoices (7)	covidvaccine (130)	covid19 (32)
pfizer (86)	covidvaccine (9)	pfizer (30)	canwetalkaboutit (41)	wtpblue (7)	coronavirustips (108)	vaccine (27)
covidvaccine (52)	canwetalkaboutit (7)	billgatesbioterrorist (18)	covidvaccine (40)	covid19 (3)	canwetalkaboutit (41)	paxlovid (10)
justinbieber (47)	coronavirustips (7)	fauciforprison (17)	pfizer (34)	demvoice1 (3)	coronavirussymptoms (32)	canwetalkaboutit (5)
vaccineinjured (33)	pfizer (7)	pfizerdocs (17)	vaccineinjured (27)	bidendelivers (2)	longcovid (22)	fauci (5)

7/12/2022



Top URLs by County June 17 – June 23

Allegheny	Butler + Beaver	Somerset
bit.ly/3zRIZRn CDC Recommends COVID-19 Vaccines for Young Children (78)	onlinelibrary.wiley.com/doi/10.1111/andr.13209 Covid-19 vaccination BNT162b2 temporarily impairs semen concentration and total motile count among semen donors (2)	apple.news/ApAOgn_dFOd6vWCljhiXsKw Americans connect extreme heat and climate change to their health, a survey finds (1)
twitter.com/CDCgov/status/1538241392471851008 CDC accepted the Advisory Committee on Immunization Practices' (ACIP) recommendation that children ages 6 months and older should be vaccinated against #COVID19 (72)	mclatchydc.com/news/politics-government/white-house/article262630927.html DeSantis reverses course, allowing Florida doctors to order COVID vaccines for young kids (1)	
thepostmillennial.com/breaking-biden-wants-money-to-fend-off-the-second-pandemic-says-all-american-babies-should-get-covid-vax BREAKING: Biden wants money 'to fend off the second pandemic', says all American babies should get Covid vax (57)	romper.com/parenting/covid-vaccine-5-under-little-kids-i'll-be-first-in-line-to-vaccinate-my-kids-but-i'll-never-forget-that-we-were-last-1 I'll Be First In Line To Vaccinate My Kids, But I'll Never Forget That We Were Last (1)	
onlinelibrary.wiley.com/doi/10.1111/andr.13209 Covid-19 vaccination BNT162b2 temporarily impairs semen concentration and total motile count among semen donors (48)	summitnews.com/2022/06/16/quadruple-vaccinated-anthony-fauci-tests-positive-for-covid Quadruple Vaccinated Anthony Fauci Tests Positive For COVID (1)	
apple.news/A8LMcTKpShabDvRkhmwTA FDA authorizes Pfizer and Moderna Covid vaccines for infants, toddlers, and preschoolers (46)	fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-moderna-and-pfizer-biontech-covid-19-vaccines-children Coronavirus (COVID-19) Update: FDA Authorizes Moderna and Pfizer-BioNTech COVID-19 Vaccines for Children Down to 6 Months of Age (1)	

7/12/2022

15



Top URLs by City June 17 – June 23

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/ Bethlehem	Other
odysee.com/@MaajidNawazd/EP9-Radical-9 On Pfizer's Former Global Head of Respiratory Diseases, the Whistleblower Dr Mike Yeadon (534)	sharylattkisson.com/2022/06/16/ep9-radical-9-on-pfizer-s-former-global-head-of-respiratory-diseases-the-whistleblower-dr-mike-yeadon-534 Republicans question CDC and FDA on their ok for Covid-19 vaccine for toddlers and babies (29)	politico.com/news/2022/06/16/desantis-covid-vaccine-florida-kids-fda-00040191 DeSantis says Florida is 'affirmatively against' Covid-19 vaccines for young kids (12)	bit.ly/3zRIZRn CDC Recommends COVID-19 Vaccines for Young Children (78)	dailysceptic.org/2022/06/17/re-evaluation-of-pfizer-trial-data-shows-zero-efficacy-say-experts Re-evaluation of Pfizer Trial Data Shows Zero Efficacy, Say Experts (3)	politico.com/news/2022/06/16/desantis-covid-vaccine-florida-kids-fda-00040191 DeSantis says Florida is 'affirmatively against' Covid-19 vaccines for young kids (27)	onlinelibrary.wiley.com/doi/10.1111/andr.13209 Covid-19 vaccination BNT162b2 temporarily impairs semen concentration and total motile count among semen donors (13)
onlinelibrary.wiley.com/doi/10.1111/andr.13209 Covid-19 vaccination BNT162b2 temporarily impairs semen concentration and total motile count among semen donors (99)	covid.gov Find COVID-19 guidance for your community (17)	onlinelibrary.wiley.com/doi/10.1111/andr.13209 Covid-19 vaccination BNT162b2 temporarily impairs semen concentration and total motile count among semen donors (11)	twitter.com/CDCgov/status/1538241392471851008 CDC accepted the Advisory Committee on Immunization Practices' (ACIP) recommendation that children ages 6 months and older should be vaccinated against #COVID19 (72)	bit.ly/3zRIZRn CDC Recommends COVID-19 Vaccines for Young Children (2)	apple.news/A8LMcTKpShabDvRkhmwTA FDA authorizes Pfizer and Moderna Covid vaccines for infants, toddlers, and preschoolers (25)	bit.ly/3zRIZRn CDC Recommends COVID-19 Vaccines for Young Children (12)
politico.com/news/2022/06/16/desantis-covid-vaccine-florida-kids-fda-00040191 DeSantis says Florida is 'affirmatively against' Covid-19 vaccines for young kids (58)	bit.ly/3zRIZRn CDC Recommends COVID-19 Vaccines for Young Children (8)	odysee.com/@MaajidNawazd/EP9-Radical-9 On Pfizer's Former Global Head of Respiratory Diseases, the Whistleblower Dr Mike Yeadon (9)	thepostmillennial.com/breaking-biden-wants-money-to-fend-off-the-second-pandemic-says-all-american-babies-should-get-covid-vax BREAKING: Biden wants money 'to fend off the second pandemic', says all American babies should get Covid vax (57)	childrenshealthdefense.org/defender/hayley-lopez-pfizer-covid-vaccine-injury-air-traffic-controller Exclusive: 29-Year-Old's Career Came 'Crashing' Down After Pfizer COVID Vaccine Injury (2)	onlinelibrary.wiley.com/doi/10.1111/andr.13209 Covid-19 vaccination BNT162b2 temporarily impairs semen concentration and total motile count among semen donors (20)	twitter.com/CDCgov/status/1538241392471851008 CDC accepted the Advisory Committee on Immunization Practices' (ACIP) recommendation that children ages 6 months and older should be vaccinated against #COVID19 (10)
fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-moderna-and-pfizer-biontech-covid-19-vaccines-children Coronavirus (COVID-19) Update: FDA Authorizes Moderna and Pfizer-BioNTech COVID-19 Vaccines for Children Down to 6 Months of Age (51)	thekylehecker.substack.com/p/fda-panel-ignores-red-flags-in-covid-fda-panel-ignores-red-flags-in-covid FDA Panel Ignores Red Flags in Covid Vaccine Data, Recommends Jabs for 'Very Young' Children (8)	dailysceptic.org/2022/06/22/covid-vaccines-more-likely-to-put-you-in-hospital-than-keep-you-out-but-editors-analysis-of-pfizer-and-moderna-trial-data-finds Covid Vaccines More Likely to Put You in Hospital Than Keep You Out, BMJ Editor's Analysis of Pfizer and Moderna Trial Data Finds (8)	onlinelibrary.wiley.com/doi/10.1111/andr.13209 Covid-19 vaccination BNT162b2 temporarily impairs semen concentration and total motile count among semen donors (48)	odysee.com/@MaajidNawazd/EP9-Radical-9 On Pfizer's Former Global Head of Respiratory Diseases, the Whistleblower Dr Mike Yeadon (2)	bit.ly/3zRIZRn CDC Recommends COVID-19 Vaccines for Young Children (16)	politico.com/news/2022/06/16/desantis-covid-vaccine-florida-kids-fda-00040191 DeSantis says Florida is 'affirmatively against' Covid-19 vaccines for young kids (9)
bit.ly/3tvXmnp Doug Ford's daughter suggests Justin Bieber's illness is somehow vaccine-related (45)	apple.news/A8LMcTKpShabDvRkhmwTA FDA authorizes Pfizer and Moderna Covid vaccines for infants, toddlers, and preschoolers (5)	statnews.com/2022/06/19/never-forget-that-early-vaccines-came-from-testing-on-enslaved-people Never forget that early vaccines came from testing on enslaved people (7)	apple.news/A8LMcTKpShabDvRkhmwTA FDA authorizes Pfizer and Moderna Covid vaccines for infants, toddlers, and preschoolers (46)	twitter.com/CDCgov/status/1538241392471851008 CDC accepted the Advisory Committee on Immunization Practices' (ACIP) recommendation that children ages 6 months and older should be vaccinated against #COVID19 (2)	twitter.com/CDCgov/status/1538241392471851008 CDC accepted the Advisory Committee on Immunization Practices' (ACIP) recommendation that children ages 6 months and older should be vaccinated against #COVID19 (16)	fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-moderna-and-pfizer-biontech-covid-19-vaccines-children Coronavirus (COVID-19) Update: FDA Authorizes Moderna and Pfizer-BioNTech COVID-19 Vaccines for Children Down to 6 Months of Age (8)

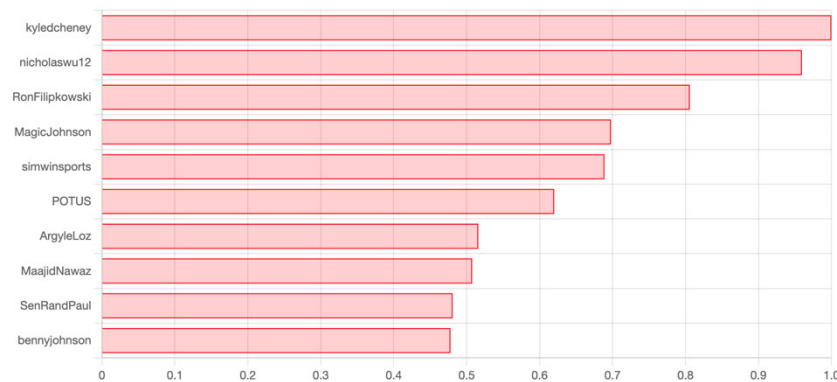
7/12/2022

16



Analysis of Tweeters - Super Spreaders

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

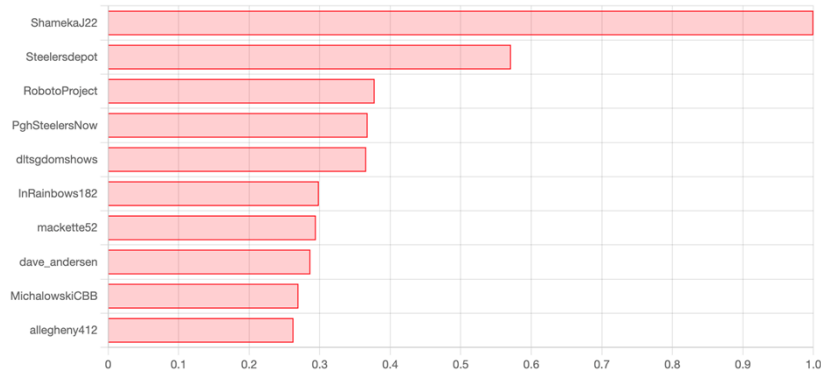


7/12/2022



Analysis of Tweeters - Super Friends

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

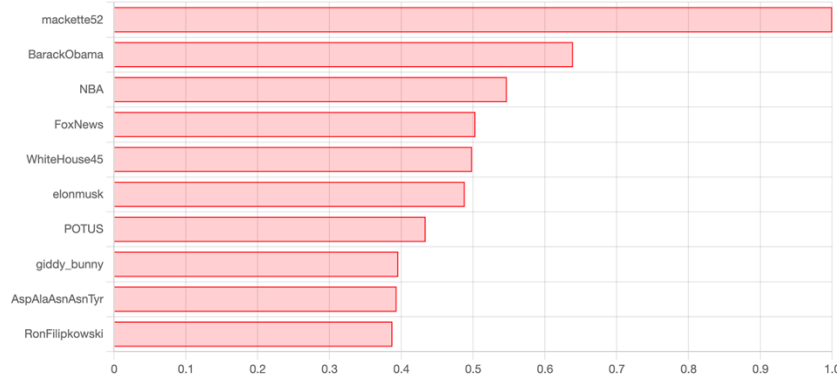


7/12/2022



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.



7/12/2022



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
MaajidNawaz[+]	583
OdyseeTeam	563
JesseKellyDC[+]	508
POTUS[+]	464
RonFilipkowski	457
SenRonJohnson[+]	371
ArgyleLoz	358
CDCgov[+]	308
ClayTravis[+]	306
pfizer[+]	283
MaajidNawaz[+]	583
OdyseeTeam	563
JesseKellyDC[+]	508

7/12/2022



Trending Tweets June 17 – June 23

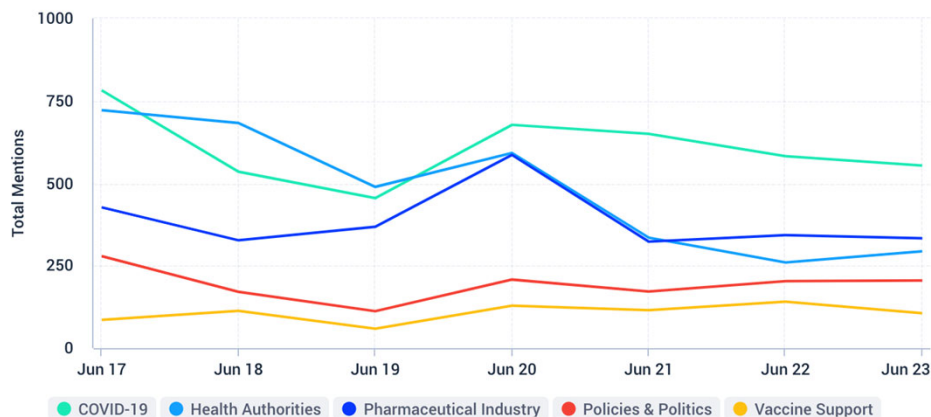
Tweets that are the most forwarded, either by retweet, reply, or quote:

- ❑ 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/fka9ccIVig>;
- ❑ I asked, "Can you tell me if anyone on the vaccine approval committees ever received money from the people who make vaccines?" Fauci: "People who receive royalties are not required to divulge them." <https://t.co/a0YIm2ifvZ>;
- ❑ BIDEN: "We need more money. We don't just need more money for vaccines for children, we need more money to plan for the second pandemic. There's gonna be another pandemic." <https://t.co/THFuFKss6>;
- ❑ FDA official Dr. Peter Marks says vaccinated kids have a 5 fold increase of myocarditis. Why on earth are they pushing the COVID vaccine on babies? We still don't know the long-term safety profile of these vaccines. <https://t.co/Ya3jdR3zRl>;
- ❑ "When people are vaccinated, they can feel safe that they are not going to get infected." —Fauci He just tested positive for Covid <https://t.co/kRBDlpm24F>;
- ❑ Dr. Fauci told us in May of last year, "When people are vaccinated they can feel safe that they are not going to get infected." A year later, after four covid shots, Fauci got covid. Whoops! <https://t.co/SOn6nsG1kv>;
- ❑ NEW - Pfizer's primary mRNA injections "temporarily" impair semen concentration and total motile count among donors. The scope of the study did not include the effects of additional "booster" injections. <https://t.co/wRtL6bCxdx>;
- ❑ Today, I endorsed ACIP's recommendation that all children 6 months through 5 years of age should receive a #COVID19 vaccine. Parents, I strongly encourage you to get your children vaccinated against COVID-19. More: <https://t.co/FR50riKaqG>;
- ❑ I am in my mid 30s, been vaccinated three times for COVID, and have largely avoided it for awhile. End last month, I got it and have been coughing ever since. Today, I checked and I have some light scarring in my lungs. <https://t.co/zWOruqu1el>;
- ❑ For parents across the U.S., today is a day of relief. The FDA has authorized the first COVID-19 shots for kids under five. As early as next week, pending CDC recommendations, parents will be able to offer their youngest the protection of a COVID-19 vaccine.

7/12/2022



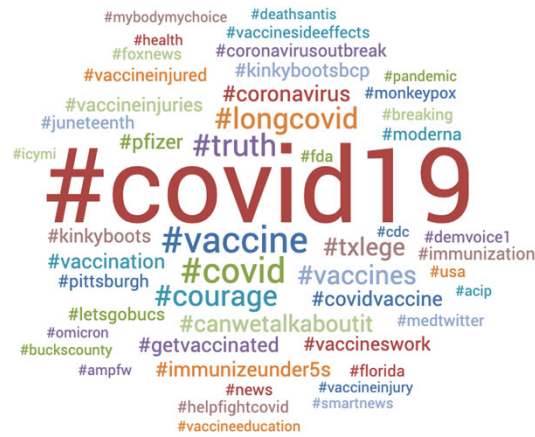
General PA Conversation June 17 – June 23



7/12/2022



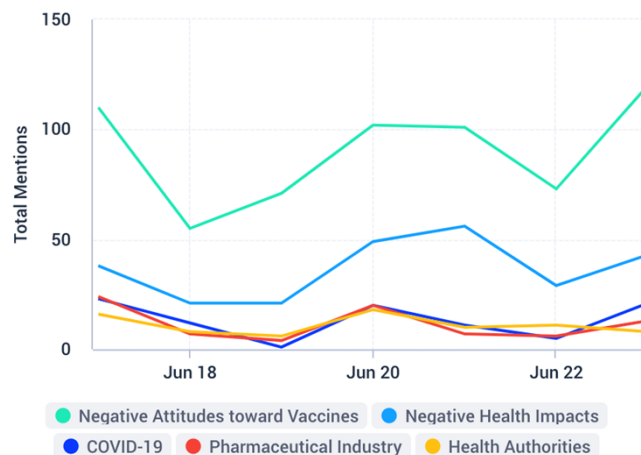
PA Hashtag Cloud June 17 – June 23



7/12/2022



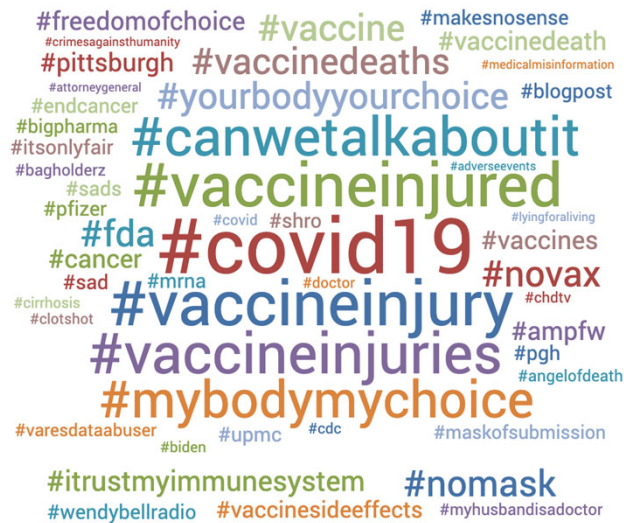
Negative Attitudes June 17 – June 23



7/12/2022



Negative Hashtag Cloud June 17 – June 23



7/12/2022



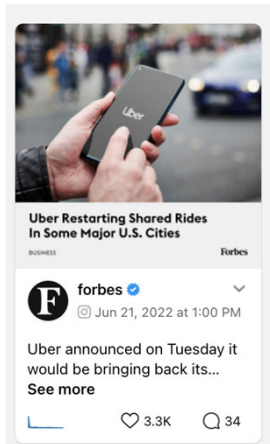
Trending Posts on Facebook June 17 – June 23



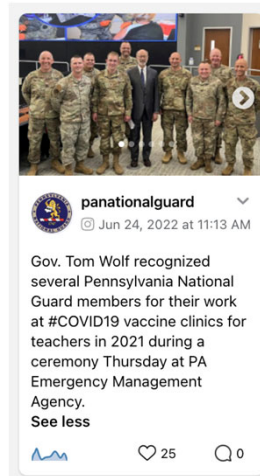
7/12/2022



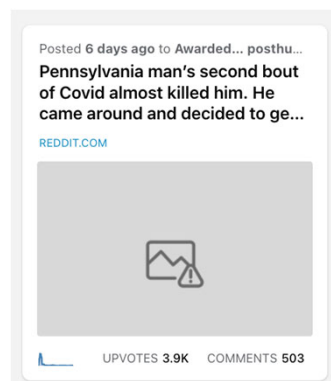
Trending Posts on Instagram June 17 – June 23



7/12/2022



Trending Posts on Reddit June 17 – June 23



7/12/2022



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

7/12/2022

Copyright © 2021 Kathleen M. Carley



29