

PA Vaccine Conversations on Twitter

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Vaccine Hesitancy Project Update based on on July 22, 2022 – July 28, 2022

The CMU centers for:

Informed DEMocracy And Social cyber-security

Computational Analysis of Social and Organizational Systems



Carnegie Mellon University



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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 July 22– July 28

- ❑ Masks, Mandates, Boosters, Children, FDA approval, Omicron are trending this week;
- ❑ Trending stories: nytimes.com/2022/07/25/nyregion/nyc-monkeypox-vaccine-doses-denmark.html As Monkeypox Spread in New York, 300,000 Vaccine Doses Sat in Denmark; foxnews.com/opinion/tucker-carlson-bidens-covid-19-positive-test-steps-vaccine-message Tucker Carlson: Biden's COVID-19 positive test steps on vaccine message; pubmed.ncbi.nlm.nih.gov/35659687 Adverse effects of COVID-19 vaccines and measures to prevent them; businessinsider.com/marjorie-taylor-greene-boasts-unvaccinated-owns-pfizer-jj-astrazeneca-stock-2021-12 Marjorie Taylor Greene, who has boasted about being unvaccinated, owns stock in 3 major vaccine makers; science.org/doi/10.1126/scitranslmed.abn4338 Elevated risk of infection with SARS-CoV-2 Beta, Gamma, and Delta variant compared to Alpha variant in vaccinated individuals; thepostmillennial.com/breaking-vaccinated-boosted-president-biden-tests-positive-for-covid BREAKING: Vaccinated, boosted President Biden tests positive for Covid
- ❑ Popular anti-vax tweets: I'm starting to believe that Tucker Carlson tonight is the only show on TV not sponsored by Pfizer; Biden got COVID despite being quad Pfizer vaxxed. So now they're putting him on the Pfizer pills lol; Tucker just went SCORCHED earth on vaccine harm and VAIDS. If you didn't fall for the greatest personal psyop in history, pat yourself on the back. <https://t.co/Kw7vtwr04S>; Government mandated and forced vaccinations for vaccines rapidly developed with a never before used vaccine technology, MRNA. with well over a million reports of vaccine injury and deaths on VAERS on the CDC website. I have a bill for this, and I'm ready to ask about SSRI's too.

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Countering disinformation July 22– July 28

- ❑ This week, we see many vaccine hesitancy and disinformation stories;
- ❑ Among fact-checking stories, there is a debunking piece about the presence of scopolamine in COVID-19 vaccination: <https://apnews.com/article/fact-check-covid-vaccine-scopolamine-094076169344> COVID-19 vaccines don't contain scopolamine
- ❑ Fact check: No, children's COVID-19 vaccines don't contain motion-sickness drug scopolamine <https://www.usatoday.com/story/news/factcheck/2022/08/01/fact-check-no-scopolamine-not-childrens-covid-19-vaccines/10168587002/>
- ❑ COVID-19 Vaccination Increases Immunity, Contrary to Immune Suppression Claims <https://www.factcheck.org/2022/07/scicheck-covid-19-vaccination-increases-immunity-contrary-to-immune-suppression-claims/>
- ❑ No evidence Pfizer Covid-19 vaccine is causing monkeypox <https://fullfact.org/online/monkeypox-pfizer-vaccine-countries/>
- ❑ Fact Check-Graph showing England's COVID-19 death statistics misrepresents impact of vaccines <https://www.reuters.com/article/factcheck-coronavirus-vaccines-idUSL1N2Z10I3>

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Popular anti-vax stories sorted by shares

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

- ❑ americasfrontlinenews.com/post/76-uk-doctors-sign-open-letter-to-government-warning-against-covid-19-child-vaccine 76 UK doctors sign open letter to government warning against COVID-19 child vaccine
- ❑ link.springer.com/article/10.1007/s00467-022-05681-4 A child with crescentic glomerulonephritis following SARS-CoV-2 mRNA (Pfizer-BioNTech) vaccination
- ❑ lionessofjudah.substack.com/p/dr-michael-yeaddon-this-must-stop Dr. Michael Yeadon: THIS MUST STOP! Pfizer Documents Show FDA Knew of Death Risk
- ❑ trib.al/rLTklbi Thousands report changes to menstrual bleeding after COVID-19 vaccine, study shows
- ❑ dailycaller.com/2022/06/27/cdc-kids-vaccine-covid-coronavirus-flawed-study-fda CDC Caught Using False Data To Recommend Kids' COVID Vaccine (34)
- ❑ outkick.com/moderna-executives-spent-millions-on-luxury-homes-due-to-covid-vaccine-sales MODERNA EXECUTIVES SPENT MILLIONS ON LUXURY HOMES DUE TO COVID VACCINE SALES (22)
- ❑ oann.com/world-government-reports-indicate-vaccinated-people-suffering-far-more-injuries-deaths-than-unvaccinated World Government Reports Indicate Vaccinated People Suffering Far More Injuries, Deaths, Than Unvaccinated
- ❑ sarahwestall.com/dmed-data-reveals-incredibly-disturbing-spikes-in-vaccine-injuries-across-the-board DMED DATA Reveals Incredibly Disturbing Spikes in Vaccine Injuries Across the Board
- ❑ childrenshealthdefense.org/defender/germany-covid-vaccine-side-effects 'Stunning': 1 in 5,000 COVID Shots Caused 'Serious Side Effects,' German Health Officials Admit
- ❑ news.sky.com/story/hair-loss-and-sexual-dysfunction-join-list-of-long-covid-symptoms-12658879 Hair loss and sexual dysfunction join list of long COVID symptoms
- ❑ rwmalonemd.substack.com/p/blinded-by-science-science-news-update CDC and FDA claim that the effects of the COVID mRNA vax on reproductive health are rare. They lied.
- ❑ thefirstlightreport.com/2022/07/24/military-doctor-cover-up-vaccine-injuries Military Doctor Testifies under Oath That She Was ORDERED To 'Cover up' Vaccine Injuries through Biden Admin Directive
- ❑ mol.im/a/11041013 Profits of the pandemic: Moderna gives Boston's property market a shot in the arm after executives splashed out millions on luxury homes near pharma giant's HQ after COVID vaccine sent profits soaring

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Anti-vax stories sorted by the projected impact

- ❑ link.springer.com/article/10.1007/s00467-022-05681-4 A child with crescentic glomerulonephritis following SARS-CoV-2 mRNA (Pfizer-BioNTech) vaccination
- ❑ americasfrontlinenews.com/post/76-uk-doctors-sign-open-letter-to-government-warning-against-covid-19-child-vaccine 76 UK doctors sign open letter to government warning against COVID-19 child vaccine
- ❑ oann.com/world-government-reports-indicate-vaccinated-people-suffering-far-more-injuries-deaths-than-unvaccinated World Government Reports Indicate Vaccinated People Suffering Far More Injuries, Deaths, Than Unvaccinated
- ❑ childrenshealthdefense.org/defender/germany-covid-vaccine-side-effects 'Stunning': 1 in 5,000 COVID Shots Caused 'Serious Side Effects,' German Health Officials Admit
- ❑ sarahwestall.com/dmed-data-reveals-incredibly-disturbing-spikes-in-vaccine-injuries-across-the-board DMED DATA Reveals Incredibly Disturbing Spikes in Vaccine Injuries Across the Board
- ❑ trib.al/rLTklbi Thousands report changes to menstrual bleeding after COVID-19 vaccine, study shows
- ❑ rwmalonemd.substack.com/p/blinded-by-science-science-news-update CDC and FDA claim that the effects of the COVID mRNA vax on reproductive health are rare. They lied.
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- ❑ lionessofjudah.substack.com/p/dr-michael-yeaddon-this-must-stop Dr. Michael Yeadon: THIS MUST STOP! Pfizer Documents Show FDA Knew of Death Risk
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- ❑ outkick.com/moderna-executives-spent-millions-on-luxury-homes-due-to-covid-vaccine-sales MODERNA EXECUTIVES SPENT MILLIONS ON LUXURY HOMES DUE TO COVID VACCINE SALES
- ❑ mol.im/a/11041013 Profits of the pandemic: Moderna gives Boston's property market a shot in the arm after executives splashed out millions on luxury homes near pharma giant's HQ after COVID vaccine sent profits soaring

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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.")

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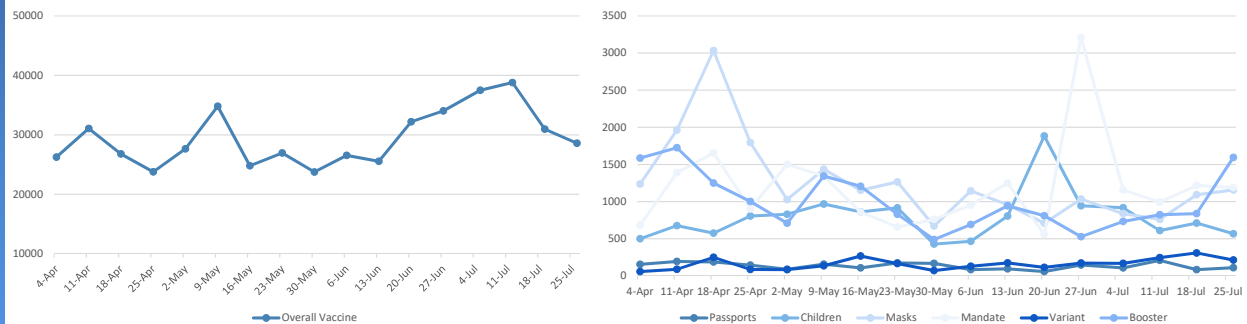
Measures for countering health disinformation

- ❑ 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.

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Trends (tweets per week in PA) July 22– July 28



High Level View by City July 22 – July 28

	Total PA	Philadelphia		Pittsburgh		Erie		Allentown/Bethlehem		Other	
Conversation	Tweets	Tweets	%	Tweets	%	Tweets	%	Tweets	%	Tweets	%
Overall Vaccine	24418	12782	52.3%	7502	30.7%	230	0.9%	2634	10.8%	1270	5.2%
Vaccine Passports	108	62	0.5%	31	0.4%	3	1.3%	11	0.4%	1	0.1%
FDA Approval	66	30	0.2%	14	0.2%	1	0.4%	20	0.8%	1	0.1%
Boosters	640	376	2.9%	166	2.2%	7	3.0%	66	2.5%	25	2.0%
Employees	51	32	0.3%	12	0.2%	1	0.4%	5	0.2%	1	0.1%
"Experimental"	78	44	0.3%	16	0.2%			13	0.5%	5	0.4%
Children	413	242	1.9%	92	1.2%	8	3.5%	58	2.2%	13	1.0%
Myocarditis	38	26	0.2%	7	0.1%			2	0.1%	3	0.2%
Heart	187	128	1.0%	30	0.4%	1	0.4%	24	0.9%	4	0.3%
Masks	1139	639	5.0%	247	3.3%	10	4.3%	102	3.9%	141	11.1%
Thrombosis/VITT	14	7	0.1%	2	0.0%	1	0.4%	1	0.0%	3	0.2%
Mandates	1030	611	4.8%	231	3.1%	13	5.7%	140	5.3%	35	2.8%
Natural Immunity	110	73	0.6%	20	0.3%	2	0.9%	12	0.5%	3	0.2%
Efficacy	78	33	0.3%	19	0.3%	1	0.4%	18	0.7%	7	0.6%
Omicron	162	83	0.6%	45	0.6%	1	0.4%	18	0.7%	15	1.2%
Delta Variant	56	23	0.2%	12	0.2%	3	1.3%	3	0.1%	15	1.2%
Race	465	250	2.0%	129	1.7%	6	2.6%	52	2.0%	28	2.2%
Ivermectin	24	14	0.1%	4	0.1%			6	0.2%		
Military	275	148	1.2%	59	0.8%	5	2.2%	57	2.2%	6	0.5%
Breakthrough	25	15	0.1%	9	0.1%			1	0.0%		

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Conversation topics trending this week over last:

- Booster/boosted
- FDA approval
- Omicron variant
- Racism

High Level View by County July 22 – July 28

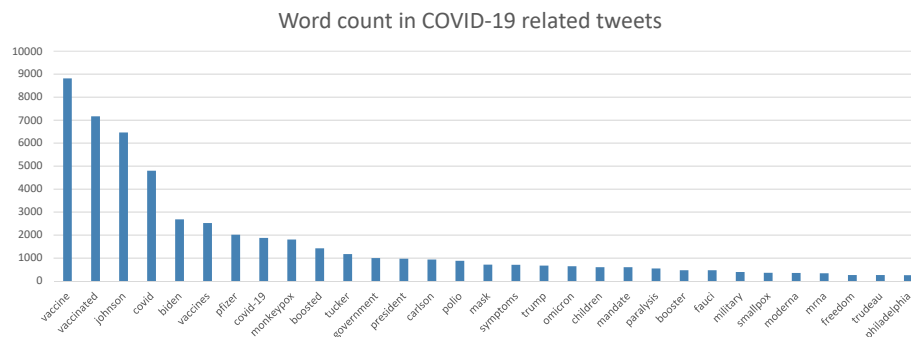
County	Allegheny	Beaver	Butler	Cambria	Fayette	Indiana	Somerset	Westmoreland
Overall Vaccine	7733	23	20	8	7	8	4	40
Vaccine Passports	31							
FDA	15							
Boosters	166							
Employees	12							
"Experimental"	18							
Children	94						1	
Myocarditis	7					1		1
Heart	30	1						
Masks	271	1	3	1			1	10
Thrombosis/VITT	2							
Mandates	237		1			1		
Natural Immunity	20				1			
Efficacy	19		1			1		
Omicron	45					1		
Delta Variant	15		4					
Race	136							3
Ivermectin	4							
Military	60							
Breakthrough	9							

- 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 July 22– July 28



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Top Hashtags by County July 22– July 28

- ❑ 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	Fayette	Indiana
vaccine (94)	covid (1)	covid19 (1)	oann (1)	novaccinemandates (1)
covid19 (51)	abolishthefda (1)	pennsylvania (1)	uk (1)	recession (1)
monkeypox (46)		protectothers (1)		vaccine (1)
oann (21)		protectyourself (1)		
vaccinesideeffects (19)		vaccine (1)		

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Top Hashtags by City July 22– July 28

- ❑ 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 (126)	vaccine (17)	covid19 (45)	vaccine (94)	covid19 (6)	covid19 (31)	covid19 (13)
vaccine (119)	covid19 (7)	vaccine (19)	covid19 (51)	monkeypox (4)	vaccine (13)	vaccine (6)
monkeypox (96)	vaccinedeaths (6)	novavax (8)	monkeypox (46)	vaccine (4)	monkeypox (10)	democratsdelivered (3)
vaccineplus (60)	pfizer (5)	monkeypox (6)	oann (21)	polio (2)	polio (7)	monkeypox (3)
pfizer (31)	vaccinesideeffects (5)	tucker (5)	vaccinesideeffects (19)	vaccines (2)	covidvaccine (5)	oann (3)

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Top URLs by County July 22– July 28

Allegheny	Butler + Beaver	Cambria	Indiana	Somerset	West Moreland
dailycaller.com/2022/06/27/cdc-kids-vaccine-covid-coronavirus-flawed-study-fda/ CDC Caught Using False Data To Recommend Kids' COVID Vaccine (34)	washingtonpost.com/health/2022/07/25/biden-administration-monkeypox-public-health-emergency/ Biden administration weighs declaring monkeypox a health emergency (1)	tribdem.com/coronavirus/health/2022/07/25/biden-administration-monkeypox-public-health-emergency/ Biden administration weighs declaring monkeypox a health emergency (1)	mol.im/a/11041013 Profits of the pandemic: Moderna gives Boston's property market a shot in the arm after executives splashed out millions on luxury homes near pharma giant's HQ after COVID vaccine sent profits soaring (1)	bit.ly/3CIme0v COVID-19 Vaccines for Children and Teens (2)	nypost.com/2020/09/08/joe-biden-walks-back-national-mask-mandate/ Biden walks back national mask mandate over 'constitutional issue' (1)
outkick.com/moderna-executives-spent-millions-on-luxury-homes-due-to-covid-vaccine-sales/ MODERNA EXECUTIVES SPENT MILLIONS ON LUXURY HOMES DUE TO COVID VACCINE SALES (22)	bit.ly/3aP94Gw Vaccines for COVID-19 (1)		thepolemicist.substack.com/p/twitter-censorship-vaccine-risk-and-twitter-censorship Vaccine Risk, and Myocarditis Mumbo-Jumbo (1)		washingtonpost.com/health/2022/07/27/monkeypox-gay-men-vaccine-treatment/ Struggle to protect gay, bisexual men from monkeypox exposes inequities (1)
pubmed.ncbi.nlm.nih.gov/35659687/ Adverse effects of COVID-19 vaccines and measures to prevent them (21)					
businessinsider.com/marjorie-taylor-greene-boasts-unvaccinated-owns-pfizer-ji-astrazeneca-stock-2021-12/ Marjorie Taylor Greene, who has boasted about being unvaccinated, owns stock in 3 major vaccine makers (15)					
oann.com/world-government-reports-indicate-vaccinated-people-suffering-far-more-injuries-deaths-than-unvaccinated/ World Government Reports Indicate Vaccinated People Suffering Far More Injuries, Deaths, Than Unvaccinated (15)					

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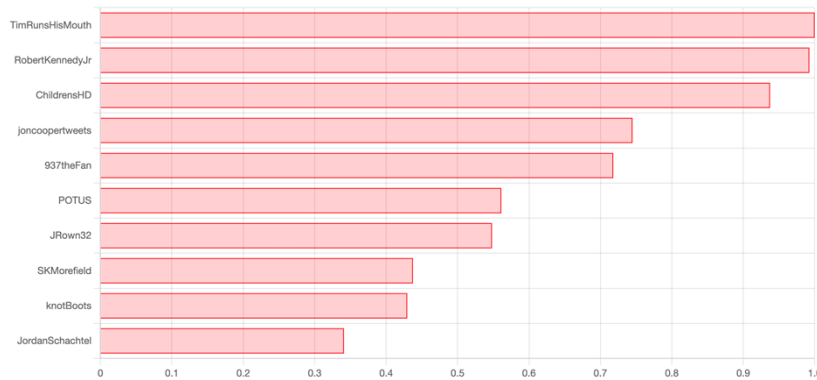


Top URLs by City July 22– July 28

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/ Bethlehem	Other
link.springer.com/article/10.1007/s00467-022-05681-4 A child with crescentic glomerulonephritis following SARS-CoV-2 mRNA (Pfizer-BioNTech) vaccination (52)	nytimes.com/2022/07/25/nyregion/nyc-monkeypox-vaccine-doses-denmark.html As Monkeypox Spread in New York, 300,000 Vaccine Doses Sat in Denmark (6)	americasfrontlinenews.com/post/6-uk-doctors-sign-open-letter-to-government-warning-against-covid-19-child-vaccine/ 76 UK doctors sign open letter to government warning against COVID-19 child vaccine (53)	dailycaller.com/2022/06/27/cdc-kids-vaccine-covid-coronavirus-flawed-study-fda/ CDC Caught Using False Data To Recommend Kids' COVID Vaccine (34)	www2.erie.gov/health/index.php Erie vaccination (10)	thefirstlightreport.com/2022/07/24/military-doctor-cover-up-vaccine-injuries/ Military Doctor Testifies under Oath That She Was ORDERED To 'Cover up' Vaccine Injuries through Biden Admin Directive (13)	evanhospital.com/virus Coronavirus Update (5)
nytimes.com/2022/07/25/nyregion/nyc-monkeypox-vaccine-doses-denmark.html As Monkeypox Spread in New York, 300,000 Vaccine Doses Sat in Denmark (42)	twmalonemd.substack.com/p/blinded-by-science-science-news-update CDC and FDA claim that the effects of the COVID mRNA vax on reproductive health are rare. They lied. (3)	science.org/doi/10.1126/scitranslmed.abn4338 Elevated risk of infection with SARS-CoV-2 Beta, Gamma, and Delta variant compared to Alpha variant in vaccinated individuals (12)	outkick.com/moderna-executives-spent-millions-on-luxury-homes-due-to-covid-vaccine-sales/ MODERNA EXECUTIVES SPENT MILLIONS ON LUXURY HOMES DUE TO COVID VACCINE SALES (22)	childrenshealthdefense.org/defender/germany-covid-vaccine-side-effects/ 'Stunning': 1 in 5,000 COVID Shots Caused 'Serious Side Effects', German Health Officials Admit (2)	thepostmillennial.com/breaking-vaccinated-boosted-president-biden-tests-positive-for-covid/ BREAKING: Vaccinated, boosted President Biden tests positive for Covid (12)	bit.ly/3CIme0v COVID-19 Vaccines for Children and Teens (3)
foxnews.com/opinion/tucker-carlson-bidens-covid-19-positive-test-steps-vaccine-message/ Tucker Carlson: Biden's COVID-19 positive test steps on vaccine message (38)	thefirstlightreport.com/2022/07/24/military-doctor-cover-up-vaccine-injuries/ Military Doctor Testifies under Oath That She Was ORDERED To 'Cover up' Vaccine Injuries through Biden Admin Directive (3)	sarahwestall.com/dmed-data-reveals-incredibly-disturbing-spikes-in-vaccine-injuries-across-the-board/ DMED DATA Reveals Incredibly Disturbing Spikes in Vaccine Injuries Across the Board (9)	pubmed.ncbi.nlm.nih.gov/35659687/ Adverse effects of COVID-19 vaccines and measures to prevent them (21)	erinenewsnow.com/story/46974855/what-to-know-about-monkeypox/ What To Know About Monkeypox (2)	trib.al/r1TKlbi Thousands report changes to menstrual bleeding after COVID-19 vaccine, study shows (11)	mol.im/a/11041013 Profits of the pandemic: Moderna gives Boston's property market a shot in the arm after executives splashed out millions on luxury homes near pharma giant's HQ after COVID vaccine sent profits soaring (3)
lionessofjudah.substack.com/p/dr-michael-yeaton-this-must-stop Dr. Michael Yeaton: THIS MUST STOP! Pfizer Documents Show FDA Knew of Death Risk (38)	americasfrontlinenews.com/post/6-uk-doctors-sign-open-letter-to-government-warning-against-covid-19-child-vaccine/ 76 UK doctors sign open letter to government warning against COVID-19 child vaccine (2)	thepostmillennial.com/breaking-vaccinated-boosted-president-biden-tests-positive-for-covid/ BREAKING: Vaccinated, boosted President Biden tests positive for Covid (9)	businessinsider.com/marjorie-taylor-greene-boasts-unvaccinated-owns-pfizer-ji-astrazeneca-stock-2021-12/ Marjorie Taylor Greene, who has boasted about being unvaccinated, owns stock in 3 major vaccine makers (15)	neim.org/doi/pdf/10.1056/NEJMc2202092 Duration of Shedding of Culturable Virus in SARS-CoV-2 Omicron (BA.1) Infection (2)	news.sky.com/story/hair-loss-and-sexual-dysfunction-join-list-of-long-covid-symptoms-12658872 Hair loss and sexual dysfunction join list of long COVID symptoms (7)	trib.al/r1TKlbi Thousands report changes to menstrual bleeding after COVID-19 vaccine, study shows (3)
trib.al/r1TKlbi Thousands report changes to menstrual bleeding after COVID-19 vaccine, study shows (37)	andrewhobson.org/wp-content/uploads/2022/07/Icelandic-Children-No-C19-deaths.pdf SARS-CoV-2 Infections in Icelandic Children (2)	novavaxvaccine.com/VACCINE-scheduling/ (8)	oann.com/world-government-reports-indicate-vaccinated-people-suffering-far-more-injuries-deaths-than-unvaccinated/ World Government Reports Indicate Vaccinated People Suffering Far More Injuries, Deaths, Than Unvaccinated (15)	news.ontario.ca/en/release/1002197/covid-19-vaccine-bookings-to-open-for-children-aged-six-months-to-under-five-years/ COVID-19 Vaccine Bookings to Open For Children Aged Six Months to Under Five Years (2)	foxnews.com/opinion/covid-vaccine-mandates-hidden-admin-cripple-national-guard/ COVID vaccine mandates from Biden admin may cripple National Guard (6)	apnews.com/article/polio-case-new-york-4c1e2512145a1d89798272507259d83 New York reports 1st US polio case in nearly a decade (2)

Analysis of Tweeters - Super Spreaders

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



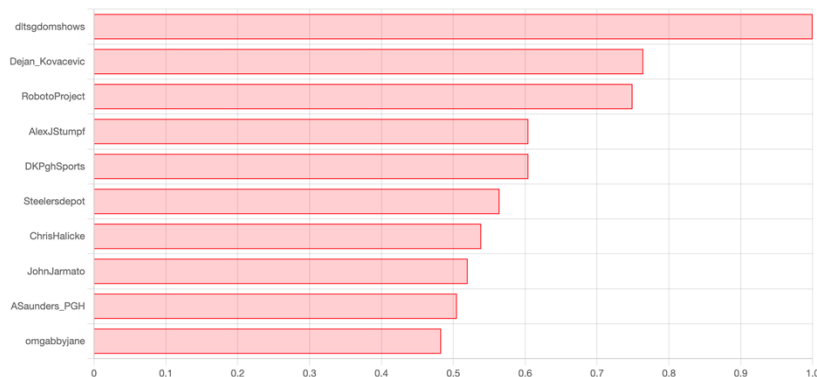
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Analysis of Tweeters - Super Friends

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



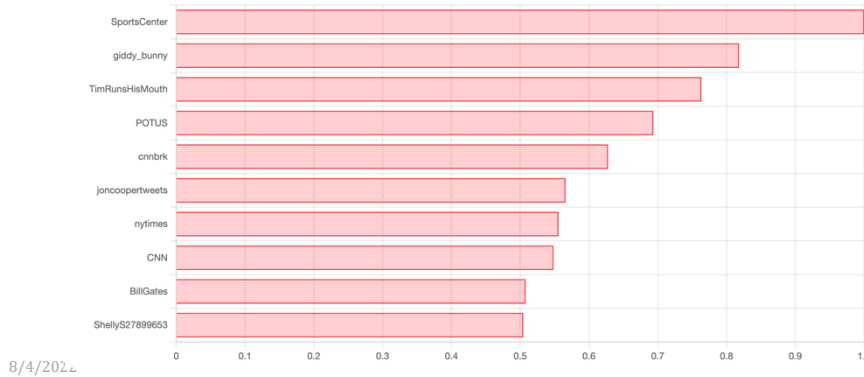
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Analysis of Tweeters - Other Influencers

- 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.



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
TimRunsHisMouth	704
POTUS	571
joncoopertweets	488
LisaMarieBoothe	250
ClayTravis	248
catturd2	240
JordanSchachtel	210
drsimonegold	202
TPostMillennial	186
RepMTG	183
TimRunsHisMouth	704
POTUS	571
joncoopertweets	488

Trending Tweets July 22– July 28

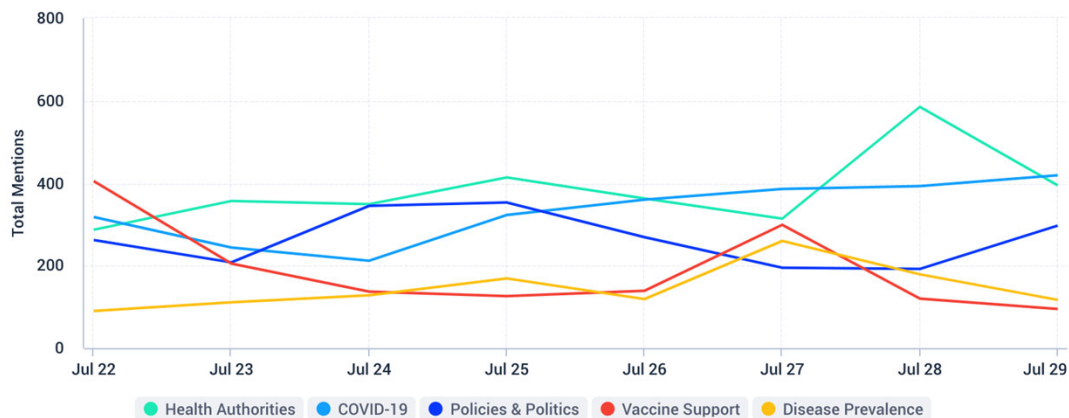
Tweets that are the most forwarded, either by retweet, reply, or quote:

- ❑ I'm starting to believe that Tucker Carlson tonight is the only show on TV not sponsored by Pfizer.
- ❑ BREAKING: The first US polio case in over 9 years happened because they were not vaccinated. They now have paralysis. I don't know who needs to hear this right now, but vaccines work.
- ❑ Dr. Deborah Birx: "I knew these vaccines were not going to protect against infection and I think we overplayed the vaccines ..." Claims vaccines "protect against severe disease and hospitalization" before saying that 50% of those who died via Omicron were older & vaccinated. <https://t.co/CTifr30ZzX>
- ❑ Y'all please look at the requirements for the monkey pox vaccine.. <https://t.co/PLrgks7zWY>
- ❑ Tucker Carlson takes a look at the effects the COVID vaccine is being shown to have on people. <https://t.co/G7WIV8BKLe>
- ❑ Tucker just went SCORCHED earth on vaccine harm and VAIDS. If you didn't fall for the greatest personal psyop in history, pat yourself on the back. <https://t.co/Kw7vtwr04S>
- ❑ Biden got COVID despite being quad Pfizer vaxxed. So now they're putting him on the Pfizer pills lol.
- ❑ This morning I tested positive for COVID-19. I am fully vaccinated and boosted and am experiencing mild symptoms. I will isolate and follow CDC guidelines as I continue to work remotely to serve West Virginians.
- ❑ Government mandated and forced vaccinations for vaccines rapidly developed with a never before used vaccine technology, MRNA. with well over a million reports of vaccine injury and deaths on VAERS on the CDC website. I have a bill for this, and I'm ready to ask about SSRI's too.
- ❑ Just a reminder, monkeypox is still very unfamiliar to Malaysian Doctors. - stigmatized because of reported sexual transmissions. But by respiratory droplets and touch too. - there's no vaccine available in Malaysia yet. Smallpox vaccine is short supply. - prevention is better.

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General PA Conversation July 22– July 28



Source: VCTR Project Dashboard

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Negative Hashtag Cloud July 22– July 28

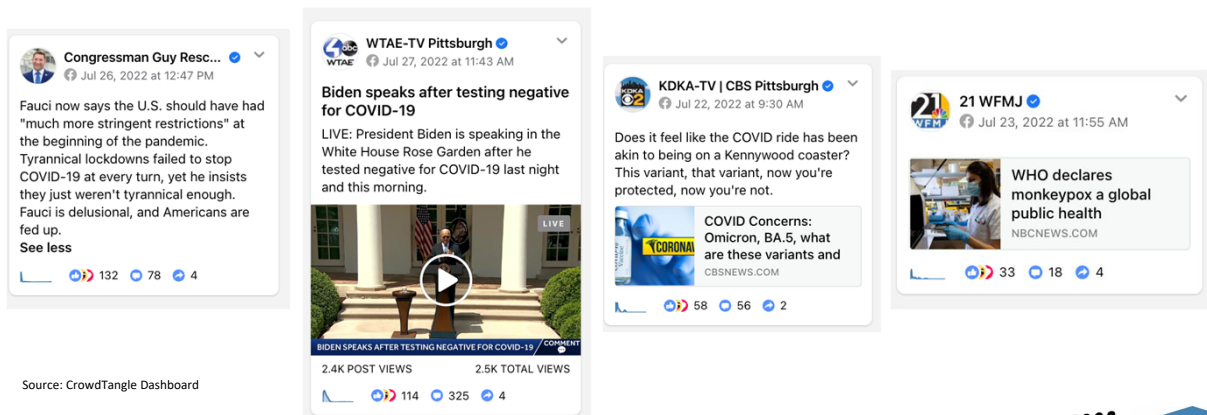


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Source: VCTR Project Dashboard



Trending Posts on July 22– July 28

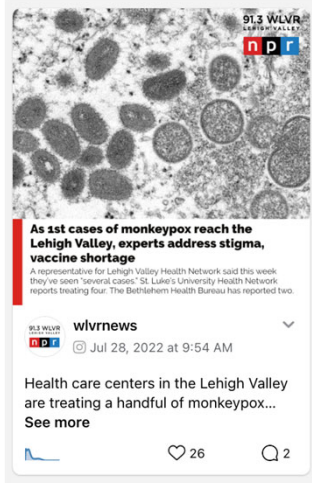


Source: CrowdTangle Dashboard

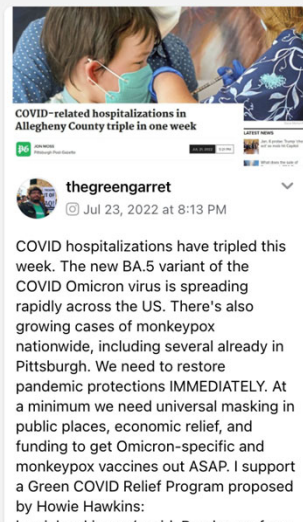
8/4/2022



Trending Posts on Instagram July 22– July 28



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Source: CrowdTangle Dashboard



Trending Posts on Reddit July 22– July 28

Posted 8 days ago to Philippines - all ab...
Monkeypox is alarming

REDD.IT



Posted 6 days ago to AutoNewspaper: C...
[Local] - Allegheny County counts 20 monkeypox cases as local vaccination efforts ramp up | Pg...

POST-GAZETTE.COM



UPVOTES 1 COMMENTS 1

Posted 6 days ago to Pennsylvania
COVID-19 continues to put a snag in the live bait business across Western Pa.

POST-GAZETTE.COM



UPVOTES 0 COMMENTS 4

Posted 6 days ago to University of Pittsb...
Not wearing a mask

REDD.IT

UPVOTES 0 COMMENTS 31

Posted 11 days ago to Medical Questions
Fever over 108, very few other symptoms

REDD.IT

UPVOTES 27 COMMENTS 42

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Source: CrowdTangle Dashboard



For More Information

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- ❑ CASOS website - <http://www.casos.cs.cmu.edu/>
- ❑ Social Cybersecurity Working Group - <http://social-cybersecurity.org>
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- ❑ YouTube: [IDeaS Center](#)
- ❑ Ask to be on our Email-Distro Lists

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