

PA Vaccine Conversations and Misinformation on Twitter

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Vaccine Hesitancy Project Update based on August 20 – August 26, 2021

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

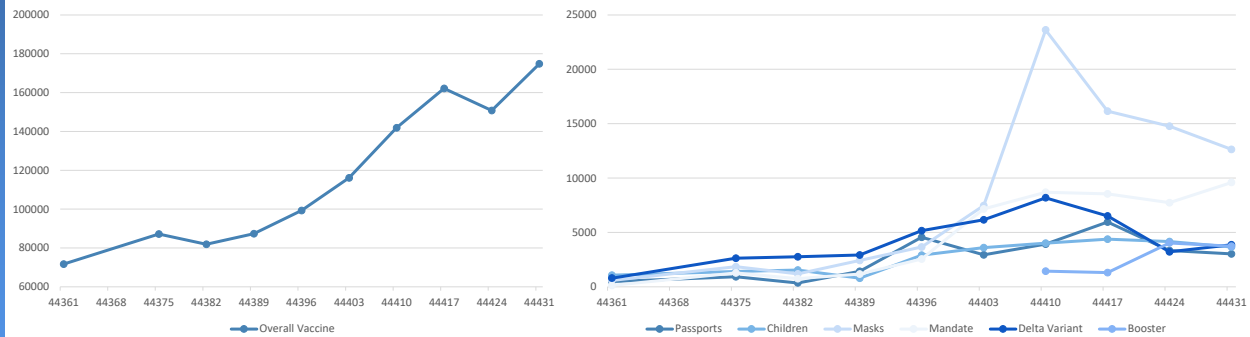
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Trends (tweets per week) August 20 – August 26



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High Level View by City August 20 – August 26

	Total PA	Philadelphia		Pittsburgh		Erie		Allentown/Bethlehem		Other	
Conversation	Tweets	Tweets	%	Tweets	%	Tweets	%	Tweets	%	Tweets	%
Overall Vaccine	148476	86142	58.02%	31961	21.53%	1431	0.96%	24040	16.19%	4902	3.30%
Vaccine Passports	2979	1714	1.99%	653	2.04%	25	1.75%	543	2.26%	44	0.90%
FDA Approval	11181	5409	6.28%	2862	8.95%	149	10.41%	2309	9.60%	452	9.22%
Boosters	3694	2061	2.39%	679	2.12%	32	2.24%	776	3.23%	146	2.98%
Misinfo: Shedding	54	31	0.04%	8	0.03%			13	0.05%	2	0.04%
"Experimental"	1118	626	0.73%	233	0.73%	7	0.49%	224	0.93%	28	0.57%
Children	2609	1432	1.66%	480	1.50%	24	1.68%	563	2.34%	110	2.24%
Myocarditis	319	151	0.18%	60	0.19%	1	0.07%	101	0.42%	6	0.12%
Heart	1308	644	0.75%	298	0.93%	13	0.91%	314	1.31%	39	0.80%
Masks	12544	6774	7.86%	2700	8.45%	162	11.32%	2137	8.89%	771	15.73%
Infertility	83	49	0.06%	18	0.06%	2	0.14%	12	0.05%	2	0.04%
Mandates	9523	5678	6.59%	1806	5.65%	79	5.52%	1632	6.79%	328	6.69%
Natural Immunity	1249	784	0.91%	282	0.88%	2	0.14%	167	0.69%	14	0.29%
Efficacy	766	386	0.45%	130	0.41%	15	1.05%	216	0.90%	19	0.39%
Spike Proteins	134	86	0.10%	26	0.08%	1	0.07%	18	0.07%	3	0.06%
Delta Variant	4941	2718	3.16%	1091	3.41%	38	2.66%	891	3.71%	203	4.14%
Race	2687	1578	1.83%	548	1.71%	33	2.31%	436	1.81%	92	1.88%
Ivermectin	813	363	0.42%	197	0.62%	14	0.98%	216	0.90%	23	0.47%
Military	944	461	0.54%	197	0.62%	9	0.63%	249	1.04%	28	0.57%
Breakthrough	920	524	0.61%	170	0.53%	2	0.14%	192	0.80%	32	0.65%

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- Tweets here counted only if there is a city location attached
- Trending conversations:
 - FDA Approval
 - Mandates
 - Efficacy
 - Ivermectin

High Level View by County August 20 – August 26

County	Allegheny	Beaver	Butler	Cambria	Fayette	Indiana	Somerset	Westmoreland
Overall Vaccine	32754	64	101	40	53	14	9	181
Vaccine Passports	662	1			1			2
Not FDA Approved	2949	8	11	9	3	1		13
Boosters	712			4				4
Misinfo: Shedding	9		1					
"Experimental"	237		1					1
Children	494	1	1	4	4			9
Myocarditis	61		1					1
Heart	305			1				2
Masks	2823	10	13	9	8	2	2	45
Infertility	18							
Mandates	1854	5	8	4	2			19
Natural Immunity	282		3					1
Efficacy	133		2					
Spike Proteins	28							
Delta Variant	1129	1	4		5	1		5
Race	564		1		1			5
Ivermectin	199	1	1		1			4
Military	201							2
Breakthrough	177	1		1	2			1

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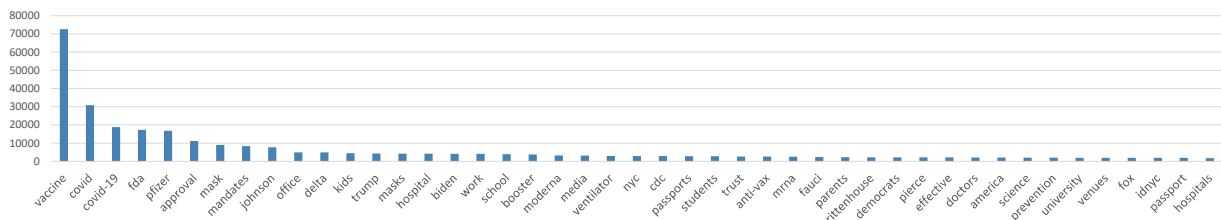
- Tweets counted here if there is a county location attached
- Race: pulled by one of the vaccine keywords plus at least one other term in ("Black", "African American", "of color", "Latin", "Hispanic", "brown", "eugenic")



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Top Words Used per Week August 20 – August 26

Word count in COVID-19 related tweets



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Top Hashtags by County August 20 – August 26

❑ 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	Butler	Cambria	Fayette	West Moreland
covid19 (1752)	covid19 (3)	covid19 (4)	afghanistancrisis (2)	covid19 (9)
racistron (259)	breaking (1)	maskup (2)	bidendisaster (2)	maskup (5)
deltavariant (254)	protectthebabies (1)	breaking (1)	covid19 (2)	getvaccinated (3)
vaccine (224)	proudnereversleeper (1)	mandatoryvaccination (1)	democratsaredestroyingamerica (1)	breaking (2)
getvaccinated (187)	soulslosttocovid (1)	pfizer (1)	racistron (1)	deltavariant (2)

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Top Hashtags by City August 20 – August 26

❑ 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 (2286)	Covid19 (406)	covid19 (504)	covid19 (1722)	covid19 (59)	covid19 (1051)	covid19 (228)
Getvaccinated (579)	vaccine (81)	Deltavariant (76)	Racistron (258)	getvaccinated (22)	getvaccinated (140)	Getvaccinated (42)
vaxupphilly (363)	Deltavariant (45)	Racistron (57)	deltavariant (252)	Getvaccinatednow (9)	racistron (96)	Breaking (31)
deltavariant (261)	pfizer (37)	Pfizer (39)	pfizer (105)	Racistron(8)	Deltavariant (84)	Maskup (20)
racistron (235)	protectyourchild (24)	stoptheshot (39)	getvaxxedrightnow (70)	Wearmask (8)	pfizer (65)	getvaxxedrightnow (19)

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Top URLs by County August 20 – August 26

Allegheny	Butler	Cambria	Fayette	Somerset	West Moreland
https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine FDA Approves First COVID-19 Vaccine (656)	https://cnn.it/2UGvulf FDA grants full approval to Pfizer/BioNTech Covid-19 vaccine, opening door to more vaccine mandates (2)	https://cnn.it/2UGvulf FDA grants full approval to Pfizer/BioNTech Covid-19 vaccine, opening door to more vaccine mandates (4)	https://newsbusters.org/blogs/free-speech/autumn-johnson/2021/08/19/white-house-pressured-facebook-take-action-against-facebook-caves-to-white-house-pressure-censors-so-called-covid-19-misinformation-on-platform (2)	https://thehockeywriters.com/blue-jackets-news-rumors-johnson-sillinger-development-more/ Blue Jackets News & Rumors: Johnson, Sillinger, Development & More (2)	https://doctorsforcourage.org/government-to-make-100-billion-off-pharma-opiate-settlements-no-accountability/ Government to Make \$100 billion off Pharma Opioid Settlements—No Accountability (3)
https://cnn.it/2UGvulf FDA grants full approval to Pfizer/BioNTech Covid-19 vaccine, opening door to more vaccine mandates (365)	https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine FDA Approves First COVID-19 Vaccine (2)	https://wlaact.com/news/local-health-officials-react-to-fdas-approval-of-pfizers-covid-19-vaccine Local health officials react to FDA's approval of Pfizer's COVID-19 vaccine (3)	https://thepatriot.com/new-oxford-study-finds-fully-vaccinated-people-with-breakthrough-covid-delta-infections-carry-as-much-virus-as-the-unvaccinated/ NEW Oxford Study Finds Fully Vaccinated People With "Breakthrough" COVID Delta Infections Carry as Much Virus as the Unvaccinated (2)	https://cflam.es/384Abll CSEC IMPLEMENTING VACCINATION POLICY (1)	https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine FDA Approves First COVID-19 Vaccine (2)
https://twitter.com/tumi213/status/1428675725645819914 'Imagine an episode of The Office where they all have to get vaccinated' (168)	http://apne.ws/oc8ApIC US regulators give full approval to Pfizer COVID-19 vaccine (1)	https://bit.ly/37Wan16 Vaccination is an act of love, pope says in ad campaign (1)	https://acasignups.net/21/08/25/weekly-update-us-covid-19-vaccination-levels-county-partisan-lean Weekly Update: U.S. #COVID19 Vaccination Levels By COUNTY & Partisan Lean (1)	https://www.vox.com/22602039/breakthrough-cases-covid-19-delta-variant-masks-vaccines Breakthrough cases aren't the cause of the US Covid-19 surge (1)	http://CovidEstim.org COVID-19 nowcasting (1)
https://trib.al/9ckEIJ7 The Vaccinated Are Worried and Scientists Don't Have Answers (93)	http://apne.ws/vl2lqOM FACT FOCUS: FDA doctors did not walk off the job (1)	https://cnn.it/3kg4WQz Full FDA approval of Pfizer/BioNTech Covid-19 vaccine is 'imminent', senior federal official says (1)	https://apnews.com/article/27bf20514cd3da917c54b71a41f2e8e COVID anxiety rising amid delta surge, AP-NORC poll finds (1)		https://act.womensmarch.com/sign/fox-news-covid-petition-social/?source=tw20210823 TELL FOX NEWS: END THE CORONAVIRUS HYPOCRISY NOW (1)
https://myti.ms/3s5KHkI Covid-19 Updates: F.D.A.'s Vaccine Approval Leads Pentagon and Others to Add Requirements (86)	http://reut.rs/2VXtmX3 Delta surging in areas of low COVID-19 vaccine coverage - WHO (1)	https://n.pr/3kg4WQz Full FDA approval of Pfizer/BioNTech Covid-19 vaccine is 'imminent', senior federal official says (1)	https://harmannreport.com/p/its-time-for-our-freedom-passports-7-nl8r&utm_campaign=post&utm_medium=email&utm_source=twitter It's Time For Our Freedom Passports! (1)		https://apnews.com/article/27bf20514cd3da917c54b71a41f2e8e COVID anxiety rising amid delta surge, AP-NORC poll finds (1)

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Top URLs by City August 20 – August 26

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/ Bethlehem	Other
https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine FDA Approves First COVID-19 Vaccine (814)	https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine FDA Approves First COVID-19 Vaccine (77)	https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine FDA Approves First COVID-19 Vaccine (154)	https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine FDA Approves First COVID-19 Vaccine (629)	https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine FDA Approves First COVID-19 Vaccine (28)	https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine FDA Approves First COVID-19 Vaccine (271)	https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine FDA Approves First COVID-19 Vaccine (104)
https://cnn.it/2UGvulf FDA grants full approval to Pfizer/BioNTech Covid-19 vaccine, opening door to more vaccine mandates (551)	https://www.tms.com/2021/07/31/dc-paid-nfl-alumni-3-5-million-to-promote-covid-19-vaccine/ CENTERS FOR DISEASE CONTROL PAID 'NFL ALUMNI' ASSOC. \$3.5 MILLION... To Promote COVID-19 Vax (60)	https://cnn.it/2UGvulf FDA grants full approval to Pfizer/BioNTech Covid-19 vaccine, opening door to more vaccine mandates (32)	https://cnn.it/2UGvulf FDA grants full approval to Pfizer/BioNTech Covid-19 vaccine, opening door to more vaccine mandates (362)	https://cnn.it/2UGvulf FDA grants full approval to Pfizer/BioNTech Covid-19 vaccine, opening door to more vaccine mandates (13)	https://cnn.it/2UGvulf FDA grants full approval to Pfizer/BioNTech Covid-19 vaccine, opening door to more vaccine mandates (94)	https://myti.ms/3s5KHkI Covid-19 Updates: F.D.A.'s Vaccine Approval Leads Pentagon and Others to Add Requirements (46)
https://myti.ms/3mb0tK Philadelphia Archdiocese says it will not support religious exemptions from Covid vaccination (320)	http://vaccines.gov (32)	https://lawandcrime.com/high-profile/conservative-lawyer-for-jan-6-defendants-who-formerly-represented-kyle-rittenhouse-is-reportedly-on-a-ventilator-due-to-covid-19/ Conservative Lawyer for Jan. 6 Defendants Who Formerly Represented Kyle Rittenhouse is Reportedly on a Ventilator Due to COVID-19 (29)	https://twitter.com/tumi213/status/1428675725645819914 'Imagine an episode of The Office where they all have to get vaccinated' (168)	https://bit.ly/2W4tq7g On-campus COVID-19 Vaccine Clinic planned for Tuesday (7)	https://www.washingtonpost.com/technology/2021/08/21/facebook-coronavirus-vaccine/ Facebook says post that cast doubt on covid-19 vaccine was most popular on the platform from January through March (54)	https://cbsn.ws/300cxml Study: Fully vaccinated people with "breakthrough" COVID Delta infections carry as much virus as the unvaccinated (20)
https://twitter.com/tumi213/status/1428675725645819914 'Imagine an episode of The Office where they all have to get vaccinated' (217)	https://violationtracker.goodjobsfirst.org/parent/pfizer Violation Tracker Parent Company Summary for Pfizer (29)	https://www.nytimes.com/2021/08/20/us/politics/fda-pfizer-covid-vaccine-full-approval.html The F.D.A. is aiming to give full approval to Pfizer's Covid vaccine on Monday (22)	https://trib.al/9ckEIJ7 The Vaccinated Are Worried and Scientists Don't Have Answers (93)	https://www.thebeast.com/ultra-vaccinated-israelis-debate-is-a-dire-warning-to-america Ultra-Vaxed Israel's Crisis Is a Dire Warning to America (7)	https://twitter.com/tumi213/status/1428675725645819914 'Imagine an episode of The Office where they all have to get vaccinated' (47)	https://cnn.it/2UGvulf FDA grants full approval to Pfizer/BioNTech Covid-19 vaccine, opening door to more vaccine mandates (16)
https://www.nbcnews.com/politics/meet-the-press/nbc-news-poll-shows-demographic-breakdown-vaccinated-u-s-n1277514 NBC News poll shows demographic breakdown of the vaccinated in the U.S. (148)	https://dailyexpose.co.uk/2021/08/20/investigation-bill-gates-has-major-shares-in-both-pfizer-biontech-and-an-foi-has-revealed-he-is-the-primary-funder-of-the-mhra/ INVESTIGATION – Bill Gates has major shares in both Pfizer & BioNTech, and an FOI has revealed he is the primary funder of the MHRA (26)	https://www.sciencedirect.com/science/article/pii/S1538389210057892 Temporal association between the COVID-19 Ad26.COV2.5 vaccine and acute myocarditis: A case report and literature review (22)	https://cnn.it/3y6meUu University of Virginia disenrolls 238 students for not complying with university's vaccine mandate (73)	https://www.washingtonpost.com/health/2021/08/23/pfizer-vaccine-full-approval/ Pfizer-BioTech coronavirus vaccine gets full FDA approval, potentially persuading the hesitant to get a shot (6)	https://dailyexpose.co.uk/2021/08/20/investigation-bill-gates-has-major-shares-in-both-pfizer-biontech-and-an-foi-has-revealed-he-is-the-primary-funder-of-the-mhra/ INVESTIGATION – Bill Gates has major shares in both Pfizer & BioNTech, and an FOI has revealed he is the primary funder of the MHRA (54)	http://apne.ws/oc8ApIC US regulators give full approval to Pfizer COVID-19 vaccine (13)

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Top Influencers by County August 20 – August 26

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

Allegheny	Butler	Cambria	Fayette	Somerset	West Moreland	Beaver	Indiana
CNN (agency)	TaylorHaasePGH (reporter)	NicoleFuschino (reporter)	LaBelle50 (high bot score)	Markscheig (reporter)	MartyGriffinKD (gov)	Thompson5devel (celebrity)	hiltongnar412
MLBVault	M_jopink (antivax)	ConemaughHealth (gov)	Irishpatriot386 (antivax) (high bot score)	RobertSroufe	Gillie	DashaBurns (reporter)	SysterJeff
KDKA (agency)	TheDanKingerski	SarahforUs (gov)	pyroov8	_elizabethmckay	WorldofOutlaws (sports)	__ADAMN__	droken26
JosephJFlynn1	MacGirlie	Kristenmhudak (celebrity)	Gigi419 (antivax) (high bot score)	j_abramowich23	UPGResLife (agency)	MorleyPgh	BeckyBecccs
penn_state (gov)	therevcw	Csonafelt (high bot score)	BroncoBaby10 (high bot score)	PFennen	thisisdanbell	HoneyBadgerC93	Michell49544820 (high bot score)

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

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Top Influencers by City August 20 – August 26

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

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/Bethlehem	Other
NotHoodlum		GovernorTomWolf (gov)	CNN (agency)	AHNtoday (gov)	Jeremynewberger (reporter)	Tumi213 (high bot score)
Nytimes (agency)	Drcraigwax (antivax)	JoyAnnReid	MLBVault	abc27News (agency)	BigJoeBastardi	US_FDA (gov)
ReallyAmerican1	Sclagmen (antivax)	NPR (agency)	KDKA (agency)	ECDOH (gov)	MattLombardoNFL (reporter)	DonaldJTrumpJr
OccupyDemocrats (agency)	ResusCGMedia	hideymchideface	JosephJFlynn1	DBChirpy (high bot score)	SenBobCasey (gov)	POTUS (gov)
PHLPublicHealth (gov)	RMConservative (reporter)	ClaudetteGGibs1	penn_state (gov)	PipNyanga	69News (agency)	RWMaloneMD

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

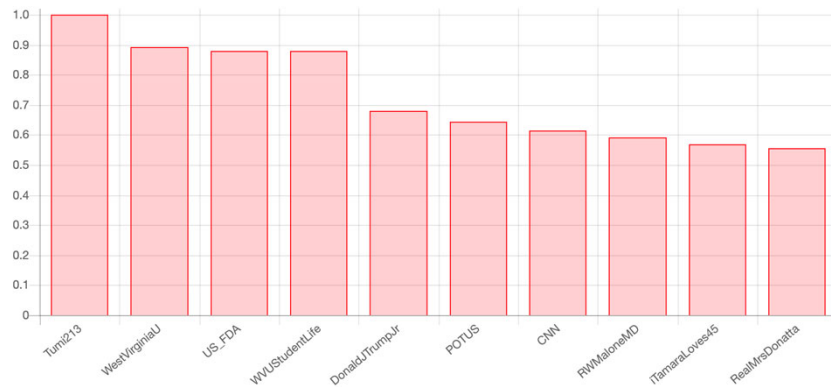
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Analysis of Tweeters - Super Spreaders

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



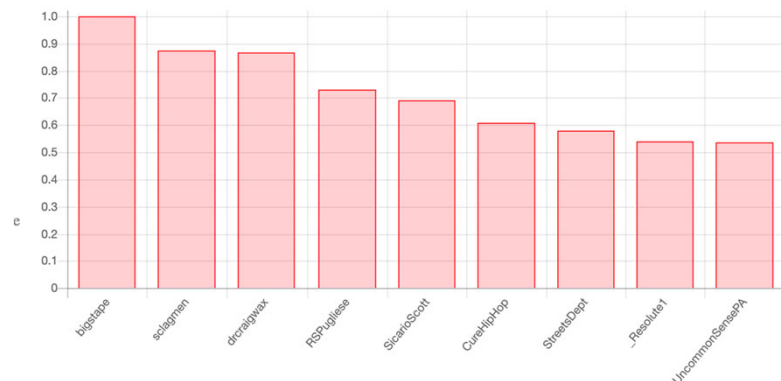
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Analysis of Tweeters - Super Friends

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



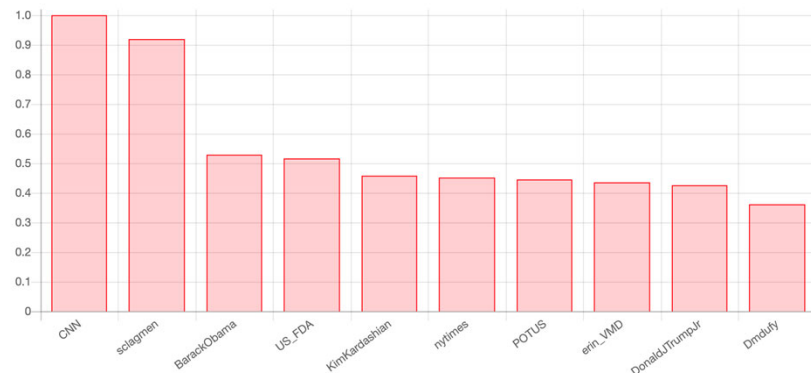
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Analysis of Tweeters - Other Influencers

- ❑ 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
DonaldJTrumpJr	1,987
RWMaloneMD	1,260
US_FDA	1,181
POTUS	1,033
MeelzTV	1,016
Puff_Iya	758
CNN	737
pfizer	683
veryvirology	683
GovernorTomWolf	615

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Trending PA stories August 20 – August 26

- ❑ [fda.gov](https://www.fda.gov) - FDA Approves First COVID-19 Vaccine (849 Mentions)
- ❑ [vaccines.gov](https://www.vaccines.gov) - Vaccines.gov - Find COVID-19 vaccine locations near you (212 Mentions)
- ❑ [nytimes.com](https://www.nytimes.com) - The F.D.A. is aiming to give full approval to Pfizer's Covid vaccine on Monday (181 Mentions)
- ❑ [washingtonpost.com](https://www.washingtonpost.com) - Facebook says post that cast doubt on covid-19 vaccine among the most popular on the platform this year (177 Mentions)
- ❑ [nytimes.com](https://www.nytimes.com) - The F.D.A. grants full approval to the Pfizer-BioNTech Covid-19 vaccine (137 Mentions)
- ❑ [youtube.com](https://www.youtube.com) - H R 4980 Vaccine Mandate (136 Mentions)

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Trending PA tweets August 20 – August 26



U.S. FDA
@us_fda

Today, FDA approved the first COVID-19 vaccine for the prevention of #COVID19 disease in individuals 16 years of age and older. <https://t.co/iOqsxXV1fj>

709
Retweets

"It's not even FDA approved!" about to turn into "Man, y'all trust the FDA?!" <https://t.co/1QM0cugmSd>

568
Retweets

The babies have no IDEA wtf Chickenpox is and y'all out here saying vaccines don't work lmaoo

259
Retweets

The idea that these vaccines came out of nowhere is a failure of science communication with tragic results. They're the result of DECADES of basic research in MULTIPLE fields building on the BREADTH and DEPTH of human knowledge. That's how science works. And it's awe inspiring.

254
Retweets

Happy day for me. Several people I care a lot about got the COVID vaccine today, overcoming some hesitancy. What do I say to my patients who are unsure about the vaccine? This:

249
Retweets

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Trending PA tweets August 20 – August 26

"But the vaccine doesn't even guarantee you won't get sick, it really only stops you from dying." Not dying sounds pretty fucking spectacular, to me.

206
Retweets

They're right. I don't know what's in that vaccine. I also don't know what's in Hydroxychloroquine. Or Robotissin. Or tea. Or anointing oil. Or the blood of Jesus. Shit, I don't know what's in people's thoughts and prayers. Also, I eat hot dogs.

180
Retweets

I tested positive for COVID this week, along with 9 of 12 fully vaxxed friends (among others), days after we attended an outdoor wedding (that required proof of vaccination) in 1 of the lowest-risk states in the country. 1/5

202
Retweets



Occupy Democrats
@occupydemocrats

BREAKING NEWS: The University of Virginia disenrolls 238 students who failed to get their COVID vaccines, violating the mandate set by the school. RT IF YOU THINK THAT ALL UNIVERSITIES SHOULD FOLLOW THEIR LEAD!

198
Retweets



Occupy Democrats
@occupydemocrats

BREAKING: Utah teacher is fired after telling her conservative students that Trump "is a moron," and that they should "take the vaccine" and "turn off FOX News." RT IF YOU THINK THIS HERO SHOULD GET HER JOB BACK!

177
Retweets

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Top PA Twitter Authors August 20 – August 26

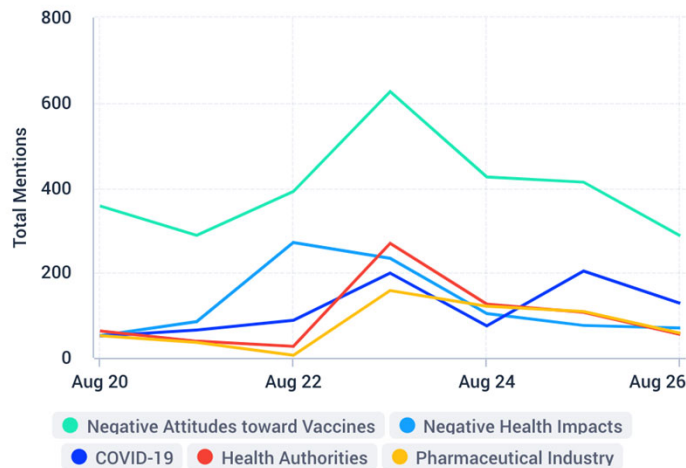
By mentions	By influence
@erin_vmd	@questlove
@cdekeane	@steelers
@blyntjames	@6abc
@bob_levitt	@malcolmnance
@enidlogan	@fox29philly
@kirkturmer777	@accuweather
@erickratz2	@nbcphiladelphia
@jwetzal70	@brithume
@stunnedvoter	@ericfisher
@johncecilprice	@phillyinquirer

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Negative Attitudes August 20 – August 26

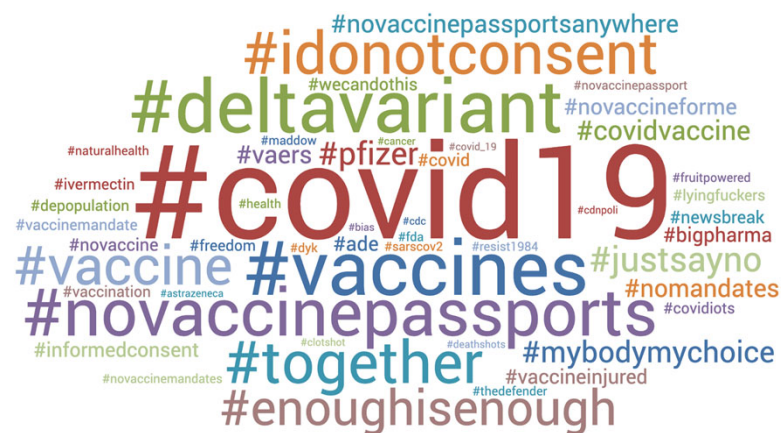


1/11/2022



23

Negative Hashtag Cloud August 20 – August 26



1/11/2022



24

Trending negative PA stories August 20 – August 26

- ❑ news.yahoo.com - A Florida mom lost her 2 sons to COVID-19 in the span of 12 hours after they refused to get the vaccine (44 Mentions)
- ❑ medrxiv.org - Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections (43 Mentions)
- ❑ technocracy.news - Shock: European Union Reports 1.5 Million Vaccine Injuries, 15,472 Deaths (32 Mentions)
- ❑ nexusnewsfeed.com - Massive fraud in reporting vaccine injuries; withheld data, pretense of "safe and effective" (12 Mentions)
- ❑ sharylattkisson.com - U.S. official finally acknowledges Covid-19 natural immunity: 'As good as vaccine' (12 Mentions)
- ❑ wsj.com - Opinion | The FDA's Vaccine Sprint (12 Mentions)
- ❑ rumble.com - Shocking Report Out About Covid Vaccine Injuries (10 Mentions)

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25

Trending Negative PA tweets August 20 – August 26

I tested positive for COVID this week, along with 9 of 12 fully vaxxed friends (among others), days after we attended an outdoor wedding (that required proof of vaccination) in 1 of the lowest-risk states in the country. 1/5

202
Retweets

The Biden regime is now threatening Marines with their pensions, tuition assistance, and even access to the G.I. bill if they refuse to take the COVID-19 vaccine. This is a new low and pure medical tyranny.

103
Retweets



Dr. Simone Gold
[@drsimonegold](https://twitter.com/drsimonegold)

BREAKING: The FDA has granted full approval to the Pfizer COVID-19 vaccine, despite significant side effects & deaths being reported in the VAERS system. Medical trials are not scheduled to be complete until April 2023. This is the most deadly medication "approval" is history.
<https://t.co/Szh9JabAEX>

65
Retweets

Anybody who pushes vaccine disinformation should be charged with a crime. They're weaponizing lies and its working, it's as deadly as if they were handing out poison candy to school children.

45
Retweets

"We've heard false claims that Covid-19 vaccines cause infertility, contain microchips and cause Covid-19. And worse, we've heard false claims that thousands of people have died from the vaccine. Let me be clear: These claims are simply not true," FDA's Dr. Peter Marks says.

39
Retweets

*support for vaccines may appear in this section if the comments on that post were expressing criticism of that post.

1/11/2022



26

Trending Negative PA tweets August 20 – August 26

A Florida mom lost her 2 sons to COVID-19 in the span of 12 hours after they refused to get the vaccine
<https://t.co/M8WszxfwwC> via @Yahoo

27
Retweets



After reviewing more data about the first COVID-19 vaccine's safety and effectiveness, the FDA has issued full approval to Pfizer vaccine, now known as Comirnaty. Make the decision to get vaccinated and join the millions who have already received this safe and effective vaccine.
<https://t.co/RrTQAmntIU>

21
Retweets

Less than 24 hours after the FDA gave full approval for the vaccine, Pfizer CEO stated that a vaccine-resistant strain is likely to emerge. Impeccable timing, wouldn't you say?

26
Retweets

The White House Staff has the freedom to choose whether or not to take an experimental vaccine but members of our military don't.

23
Retweets

The reality is we don't have all of the answers about COVID vaccine safety. The information is constantly shifting in an ever-changing environment. Nothing should be forced or mandated in that kind of environment. People have a right to question what we are being told.

20
Retweets

1/11/2022



27

Top PA Negative Twitter Authors August 20 – August 26

By mentions	By influence
@tackingcaleuche	@malcolmnance
@heidella	@abc27news
@vick_vma	@ryanlcooper
@jules369369369	@pahealthdept
@cdekeane	@hollowmanseries
@jwetzl70	@jmarshfof
@jax4336	@bigjoebastardi
@kirkturmer777	@themasstone
@activistchick7	@padeptofed
@christi06249366	@joegooding

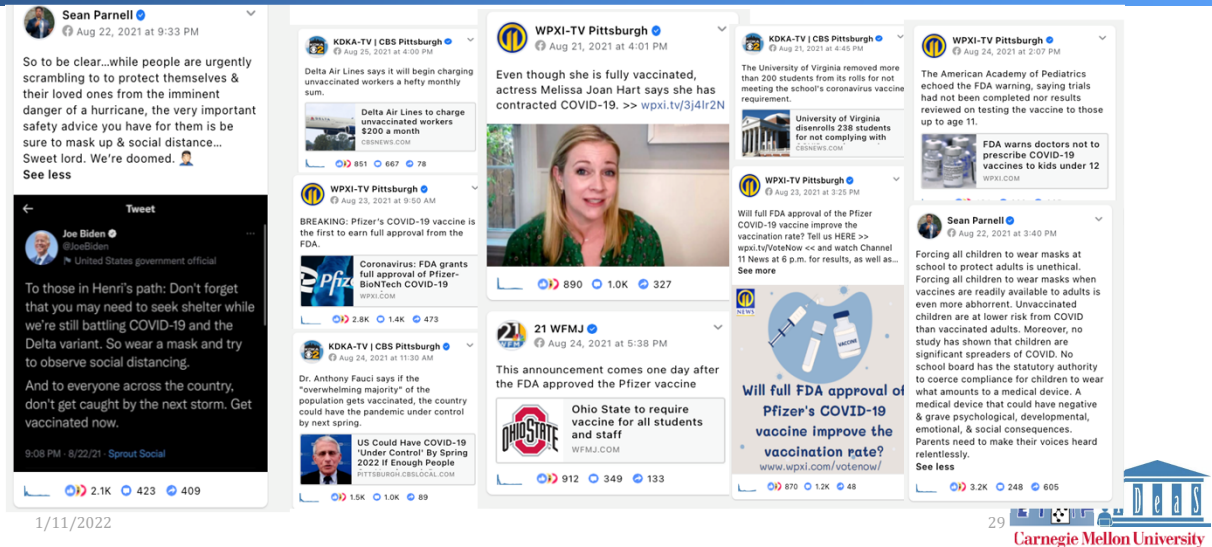
*support for vaccines may appear in this section if the comments on that post were expressing criticism of that post.

1/11/2022



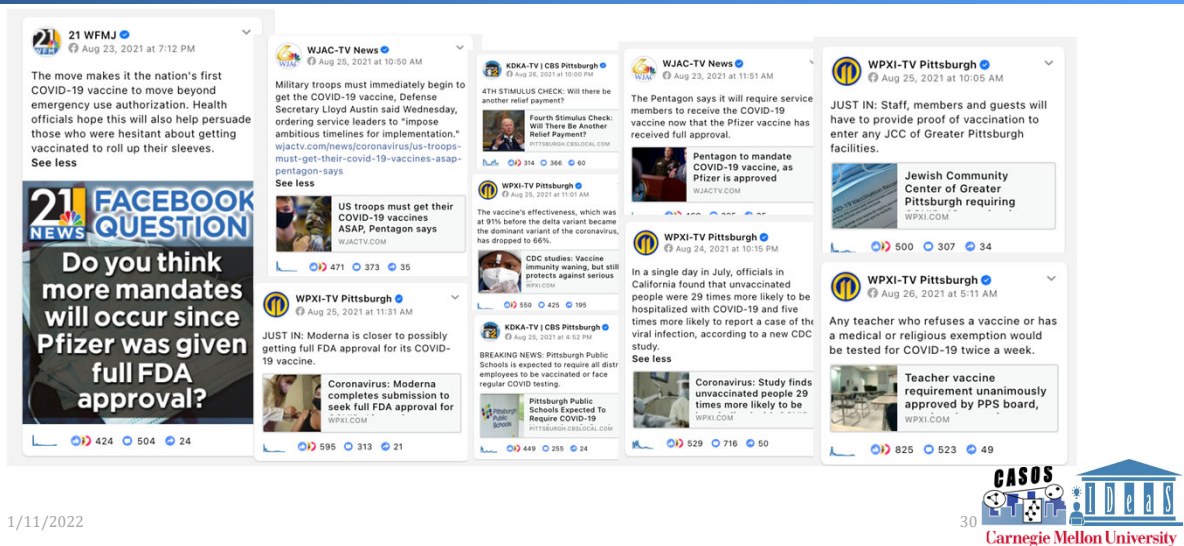
28

Trending Posts on Facebook August 20 – August 26



29

Trending Posts on Facebook August 20 – August 26



30

Trending Posts on Instagram August 20 – August 26

HOW IMPORTANT IS IT TO THINK AHEAD LIKE THAT TO PROTECT SOMETHING BEFORE IT GETS OUT OF CONTROL?

IT'S EVERYTHING! 'CAUSE SINCE IT'S GONE OUT OF CONTROL, YOU CAN'T REEL IT BACK IN.

SO, EVERYONE SHOULD GET THE VACCINE? WHAT? NO!

@thedailyshow
Aug 25, 2021 at 5:01 PM

@jordanklepper goes toe-to-toe with anti-vax mandate protesters in NYC - link in bio
See less

215.3K 2.9K

SHOULD THE STATE PASS A MASK MANDATE FOR K-12 SCHOOLS?

YES NO NOT SURE

pennlive
Aug 25, 2021 at 3:00 PM

Gov. Tom Wolf is calling on the Republican-led legislature to return to the Capitol immediately to pass legislation mandating the use of masks in K-12 classrooms and child-care centers throughout Pennsylvania. Do you think that's a good idea? #pennsylvania #covid #coronavirus #covid19 #k12 #schools #education
See less

767 528

PENNSYLVANIA WOMAN SENTENCED TO JAIL FOR COUGHING ON \$35K SUPERMARKET GOODS

balleraleert
Aug 26, 2021 at 11:26 AM

Pennsylvania Woman Sentenced To Jail For Coughing On \$35K Supermarket Goods Blogged by: @ErinBoogie A #Pennsylvania woman who spat and coughed on food in a grocery store last year was sentenced to jail time Tuesday. #MargaretAnnCirko, 37, was sentenced to one to two years in jail. In addition to the jail time, the judge ordered her to pay a \$30,000 fine and will need to undergo mental health, drug, and alcohol evaluations. "I wish I could take it back," Cirko told the court. In March of last year, Cirko went into a Gertie's Supermarket at the very beginning of the COVID-19 pandemic and started screaming, "I have the virus. Now everyone is going to get sick." She began coughing and spitting on food and merchandise, costing the store about \$35,000. Her lawyers maintain that she suffered from mental health issues and was drunk at the time... to read the rest log on to BallerAlert.com (clickable link on profile)
See less

61.6K 1.8K 177

Pa. Just Administered More First Vaccine Doses in August Than in July

phillyinquirer
Aug 24, 2021 at 4:16 PM

Pennsylvania and New Jersey have administered more first doses of COVID-19 vaccine in August so far than in all of July. This provides promising news as the highly transmissible delta variant spreads and hospitalizations — primarily of the unvaccinated — continue to rise. Between Aug. 1 and Tuesday, more than 381,000 first shots had been given across Pennsylvania, according to an Inquirer analysis, marking an increase from the 355,557 first doses administered in all of July. In New Jersey, more than 274,000 people had gotten first doses so far this month, the analysis showed, compared with 237,039 in July. With a week left in August, and more vaccine mandates expected in light of Monday's full authorization of the Pfizer vaccine by the FDA, the tallies could still get an additional boost. Learn more at the link in bio. [/by Chris A. Williams / Staff](#) #pennsylvania #nj #pa #newjersey #covid19 #vaccination #vax #bythenumbers
See less

927 16

arynewsy
Aug 23, 2021 at 12:30 PM

Kofi Owusu occasionally waits outside the U.S. embassy in Accra to ask fellow students what they have done to secure a timely visa appointment. Classes for his master's program at Villanova University in Pennsylvania are scheduled to start Monday, but his in-person interview appointment for a first-time U.S. student visa is still nine months away. It's the second time the political science student from Ghana won't make it to the United States in time for school. "I think they should just open up the system," said Owusu, adding "they are operating on a rather limited schedule so I think they can broaden it and give students priority." Visa processing is delayed at U.S. embassies and consulates operate at reduced capacity around the world due to the COVID-19 pandemic, leaving some students abroad unable to make it for the start of the academic year. The country's standing as a preferred choice for international students and their economic contribution of around \$40 billion annually to many universities and local economies. New international student enrollment in the United States dropped 43% in fall 2020 from the year prior, months after COVID sent the world into lockdown. The number of new students who actually made it onto campus in person declined by 72%, according to an enrollment survey by the Institute of International Education (IIE). Educational advocacy groups are calling for interview waivers and video interviews for students and scholars in lieu of the required in-person interview to obtain an F or M student visa. #ARYNews #StudentVisa #Visa #USVisa #USStudentVisa #LatestNews #NewsUpdates
See less

2.3K 20

1/11/2022

31

Trending Posts on Instagram August 20 – August 26

Map: Find your Allegheny County ZIP code's COVID vaccination rate

publicsource
Aug 27, 2021 at 12:26 PM

Allegheny County released COVID-19 vaccination data by ZIP codes this week, with the county's top health official saying they would use the information to combat inequity in the response to the virus. County Health Director Dr. Debra Bogen said the county would update the data every month. Follow the link in our bio for an interactive map showing the percentage of residents aged 10 or older who were at least partially vaccinated as of Aug. 14. ZIP codes with the highest vaccination rates included Baldwin, Wexford, Upper St. Clair and Pittsburgh neighborhoods Squirrel Hill and Lawrenceville. The areas with the lowest vaccination rates in the county included Rankin, Braddock and part of McKeesport, each under 45%. Map by Charlie Wolfson/PublicSource. Source: Allegheny County Health Department.
See less

33 0

keystonewestroom
Aug 24, 2021 at 6:33 PM

The Jonas Brothers announced their own safety protocols for the #RememberThisTour starting on Aug. 27. Attendees must provide proof of vaccination or a negative COVID test within 72 hours to attend a concert. The band will play in PA twice this fall — at Hersheypark Stadium on Sept. 24 and The Pavilion at Star Line on Oct. 6. The unvaccinated must be #Jealous, #BurninUp, or wearing it was the #Year3000. @haleyobrien, @KeystoneStaff #JonasBrothers #JoBros #Concert #Covid #Covid19 #CovidPandemic #Coronavirus #CoronavirusPandemic #EndThePandemic #VaccinesSaveLives #DoNotThrowAwayYourShot #ShotsShotsShotsShots #GotMyShotPA #PA #Pennsylvania
See less

87 1

keystonewestroom
Aug 25, 2021 at 7:57 PM

Margaret Ann Cirko will spend at least a year in jail for coughing and spitting on food in a Luzerne County supermarket at the outset of the pandemic. Authorities said Cirko, 37, entered a Gertie's Supermarket location on March 25, 2020 and purposefully coughed on fresh produce and other merchandise while yelling that she had COVID-19 and that everyone would get sick. Cirko tested negative for COVID-19, according to her attorney, who said she was intoxicated at the time of the incident. She apologized during her sentencing on Tuesday, telling the court, "I wish I could take it back." A Luzerne County judge called Cirko's conduct "totally outrageous" and sentenced her to one to two years in jail, to be followed by eight years of probation. She also was ordered to pay nearly \$30,000 in restitution for merchandise the supermarket had to throw out due to her actions. "People were really, really scared," Gertie's co-owner Joe Fasula told WNEP. "We had a lot of employees that really got freaked out by the whole thing." Fasula also told WNEP that he hopes Cirko's sentence will deter others from doing something similar. "I'm just glad that this sets a precedent to anybody else that might think of doing something like this, that there's repercussions." @patrickdberkey Luzerne County Department of Corrections #Covid #Covid19 #CovidPandemic #Coronavirus #CoronavirusPandemic #LuzerneCounty #NEPA #PA #Pennsylvania
See less

141 8

lanasteronline
Aug 26, 2021 at 12:47 AM

In Thursday's #LNP: On-campus #students at #Pennsylvania's state #universities learn how hard it can be to find another #roommate when their #vaccine status doesn't match; Gov. #TomWolf asks the state #Legislature to reconvene to enact a #mask #mandate for K-12 schools and #daycares around the state, but #Republican lawmakers show little interest; #DeltaAirLines says its #unvaccinated workers will have to pay an extra \$200 a month in #health #insurance premiums to offset the possible #hospitalization costs of contracting #COVID19; a #FranklinandMarshallCollege #poll shows the majority of Pennsylvania voters favor redistricting #reform. ... Interested in subscribing to LNP? Go to lanasteronline.com/subscribe.
See less

41 14

keystonewestroom
Aug 26, 2021 at 4:23 PM

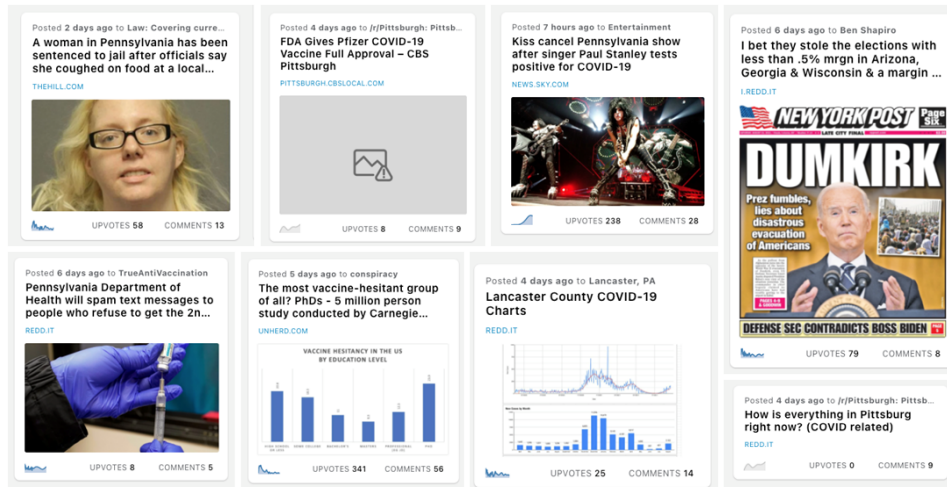
Who's still proud to be a Penn Stater? Follow us for more Pennsylvania humor, culture, and news. #PA #Pennsylvania #PennsylvaniaMemes
See less

171 4

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Trending Posts on Reddit August 20 – August 26



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33

General Trends August 20 – August 26

- ❑ This week, overall trending story was FDA approval for Pfizer vaccine;
- ❑ As a result of FDA approval for Pfizer, people express more concerns about mandates since vaccine approval opens door for new regulations that are taking place since more organizations require full vaccination for their employees now. Those concerns were presented in the data for all the social media in our analysis (Twitter, Facebook, Instagram, Reddit);
- ❑ Mandates and Masks conversations are the most popular, new hashtag #racistron was spread with the critique of Ron Johnson, Senator from Wisconsin, also hashtags similar to #ProtectYourChild (against masks at schools) were identified in trends;
- ❑ Story about recent CMU research is still trending on Reddit this week with the focus on high vaccine hesitancy level among educated individuals with PhDs;
- ❑ Several antivax stories were identified in this week's data: [technocracy.news](#) - Shock: European Union Reports 1.5 Million Vaccine Injuries; 15,472 Deaths; [nexusnewsfeed.com](#) - Massive fraud in reporting vaccine injuries; withheld data, pretense of "safe and effective"; [rumble.com](#) - Shocking Report Out About Covid Vaccine Injuries;
- ❑ Users @scलगmen, @drcraigwax, & @RayArmat are three super friends spreading antivax rhetoric on Twitter in Pennsylvania (super friends are users that exhibit frequent two-way communication, facilitating large or strong communication networks). Health workers could investigate their accounts to figure out how to better debunk their messages;
- ❑ Facebook messages also illustrated the overall concern about required vaccination and mask mandates, especially for schools (required masks, vaccination for students).

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For More Information

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 - ❑ <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

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