

PA Vaccine Conversations and Misinformation on Twitter

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Vaccine Hesitancy Project Update based on September 3 – September 9, 2021

The CMU centers for:

Informed DEMocracy And Social cyber-security

Computational Analysis of Social and Organizational Systems



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- ❑ This report is an effort to summarize social media conversations around COVID-19 issues in Pennsylvania, focusing on vaccination. It contains an analysis of the general topics about the current pandemic, such as COVID-19 regulations, mandates, masks, pro-and anti-vaccination campaigns, as well as other topics related to COVID-19 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.

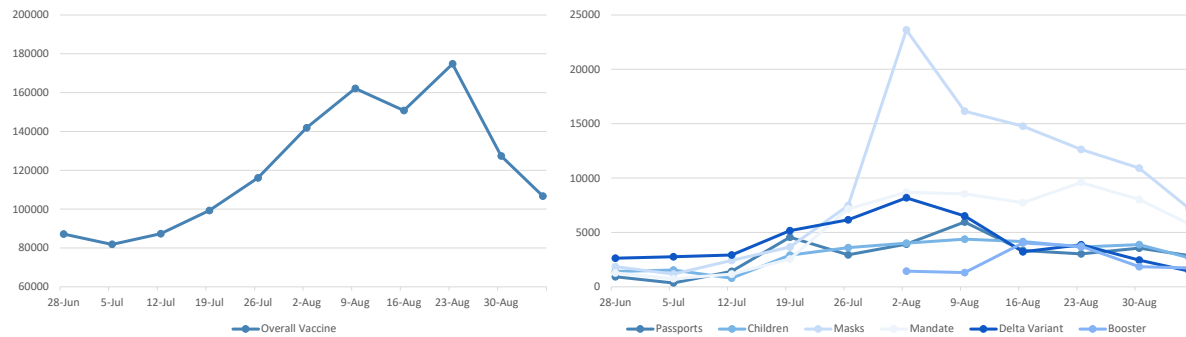
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Trends (tweets per week) September 3– September 9



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High Level View by City September 3 – September 9

	Total PA	Philadelphia		Pittsburgh		Erie		Allentown/Bethlehem		Other	
Conversation	Tweets	Tweets	%	Tweets	%	Tweets	%	Tweets	%	Tweets	%
Overall Vaccine	92342	55186	59.8%	22352	24.2%	717	0.8%	11381	12.3%	2706	2.9%
Vaccine Passports	2846	1565	2.8%	685	3.1%	34	4.7%	511	4.5%	51	1.9%
FDA Approval	891	411	0.7%	303	1.4%	11	1.5%	148	1.3%	18	0.7%
Boosters	1716	874	1.6%	402	1.8%	13	1.8%	355	3.1%	72	2.7%
Misinfo: Shedding	38	22	0.0%	9	0.0%	1	0.1%	4	0.0%	2	0.1%
"Experimental"	257	137	0.2%	51	0.2%			59	0.5%	10	0.4%
Children	1678	998	1.8%	363	1.6%	13	1.8%	258	2.3%	46	1.7%
Myocarditis	138	98	0.2%	15	0.1%			24	0.2%	1	0.0%
Heart	1099	703	1.3%	206	0.9%	12	1.7%	154	1.4%	24	0.9%
Masks	7117	3912	7.1%	1566	7.0%	87	12.1%	1032	9.1%	520	19.2%
Infertility	30	20	0.0%	6	0.0%			3	0.0%	1	0.0%
Mandates	5745	3154	5.7%	1352	6.0%	63	8.8%	972	8.5%	204	7.5%
Natural Immunity	821	562	1.0%	151	0.7%	1	0.1%	102	0.9%	5	0.2%
Efficacy	274	125	0.2%	67	0.3%			76	0.7%	6	0.2%
Spike Proteins	77	37	0.1%	12	0.1%	3	0.4%	21	0.2%	4	0.1%
Delta Variant	2088	1226	2.2%	412	1.8%	21	2.9%	330	2.9%	99	3.7%
Race	1391	816	1.5%	350	1.6%	16	2.2%	168	1.5%	41	1.5%
Ivermectin	1560	824	1.5%	384	1.7%	16	2.2%	298	2.6%	38	1.4%
Military	286	150	0.3%	66	0.3%	7	1.0%	60	0.5%	3	0.1%
Breakthrough	517	310	0.6%	112	0.5%	1	0.1%	86	0.8%	8	0.3%

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- Tweets here counted only if there is a city location attached
- Less Twitter data overall, due to holiday weekend
- Trending conversation this week:
 - Ivermectin

High Level View by County September 3– September 9

County	Allegheny	Beaver	Butler	Cambria	Fayette	Indiana	Somerset	Westmoreland
Overall Vaccine	22758	24	52	26	33	9	10	56
Vaccine Passports	694		1					1
Not FDA Approved	306		2					
Boosters	415		2		1	2	2	3
Misinfo: Shedding	10							
"Experimental"	53		1					
Children	370				2			1
Myocarditis	15							
Heart	210				1			2
Masks	1644	3	9	4	6	1	4	13
Infertility	6							
Mandates	1381	1	3	1	3	3	2	6
Natural Immunity	152		1					
Efficacy	67							
Spike Proteins	13							
Delta Variant	425	1	1			1		2
Race	353							
Ivermectin	388		2		1			1
Military	66							
Breakthrough	114							

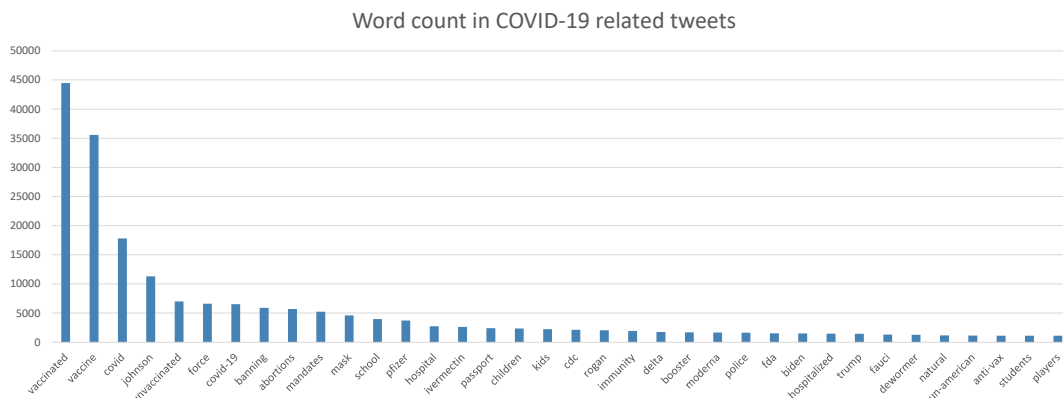
- Tweets counted here if there is a county location attached
- Race: pulled by one of the vaccine keywords plus at least one other term in ("Black", "African American", "of color", "Latin", "Hispanic", "brown", "eugenic")

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Top Words Used per Week September 3– September 9



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Top Hashtags by County September 3– September 9

- ❑ 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	West Moreland
ronaron (993)	Protein (3)	novaccine (2)	maskmandate (1)
covid19 (796)	covid (2)	vaccinated (2)	mybodymychoice (1)
resist (156)	covidvaccine (2)	vaccinehero (2)	texastaliban (1)
vaccine (103)	mrna (1)	covid (1)	
covid (97)	covidiots (1)	quarantine (1)	

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Top Hashtags by City September 3– September 9

- ❑ 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 (910)	covid19 (140)	covid19 (171)	ronaron (991)	covid19 (22)	covid19 (276)	getvaccinated (74)
ronaron (399)	ronaron (38)	ronaron (58)	covid19 (790)	demvoice1 (18)	ronaron (60)	wearamask (54)
covid (353)	deltavariant (31)	getvaccinated (54)	resist (156)	getvaccinated (13)	getvaccinated (38)	covid19 (42)
vaccine (279)	demvoice1 (28)	vaccine (47)	vaccine (101)	vaccine (47)	novaccinepassportsanywhere (36)	colts (17)
colts (258)	vaccine (27)	vaccineswork (44)	covid (97)	vaccineswork (44)	vaccineswork (44)	wentz (17)

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Top URLs by County September 3– September 9

Allegheny	Butler + Beaver	Cambria	Fayette	West Moreland
https://freeworldnews.tv/watch?id=613801fb52ad2c11984cfd9 West Virginia Governor Drops Bombshell: 25% Increase In Death Amongst Vaccinated Individuals (171)	https://kfor.com/news/local/patients-overdosing-on-ivermectin-backing-up-rural-oklahoma-hospitals-ambulances/ Patients overdosing on ivermectin backing up rural Oklahoma hospitals, ambulances (3)	https://youtu.be/O2026ezDZh8 Please Get Vaccinated Today (6)	https://www.oregonlive.com/coronavirus/2021/09/we-dont-have-any-vaccinated-patients-here-idaho-hospitals-crushed-by-covid-19-surge.html 'We don't have any vaccinated patients here.' Idaho hospitals crushed by COVID-19 surge (1)	http://dlvr.it/S6r6By CDC study finds over 80% of US adults have some immunity to COVID, notes prior infection offers similar protection as vaccine (1)
https://www.mcsweeneys.net/articles/oh-my-fucking-god-get-the-fucking-vaccine-already-you-fucking-fucks OH MY FUCKING GOD, GET THE FUCKING VACCINE ALREADY, YOU FUCKING FUCKS (101)	https://babylonbee.com/news/liberal-feels-sad-for-man-dying-of-covid-then-happy-after-hearing-he-wasnt-vaccinated-then-sad-again-because-he-was-an-illegal-immigrant Liberal Feels Sad For Man Dying Of COVID, Then Happy After Hearing He Wasn't Vaccinated, Then Sad Again Because He Was An Illegal Immigrant (2)	https://abcn.ws/3zSMpk1 Prince Harry urges governments and pharma companies to end vaccine inequity (1)	https://babylonbee.com/news/liberal-feels-sad-for-man-dying-of-covid-then-happy-after-hearing-he-wasnt-vaccinated-then-sad-again-because-he-was-an-illegal-immigrant Liberal Feels Sad For Man Dying Of COVID, Then Happy After Hearing He Wasn't Vaccinated, Then Sad Again Because He Was An Illegal Immigrant (1)	https://mpl.in/a/9951637 EXCLUSIVE: 'He brought the virus to the set!' Actor Miles Teller tests positive for Covid after refusing vaccine, shutting down production of The Godfather spinoff series The Offer (1)
https://www.thedailynews.com/news/university/vvu-faculty-overwhelmingly-support-covid-19-vaccine-mandate-1094-to-185/article_8920b504-0cbb-11ec-90f6-67d33be6da29.html In rare assembly, WVU faculty vote overwhelmingly in favor of COVID-19 vaccine mandate (72)	https://bit.ly/38Fb12m 36% Of Those Who Had Covid-19 Didn't Develop Antibodies, Study Says (1)	https://wjactv.com/news/local/parents-students-at-dubois-area-school-district-protest-pa-school-mask-mandate Parents & students at Dubois Area School District protest PA school mask mandate (1)	https://www.itv.com/news/2021-09-01/duke-of-sussex-blames-mass-scale-misinformation-for-vaccine-hesitancy Prince Harry blames 'mass-scale misinformation' within the media for Covid vaccine hesitancy (1)	https://nbcnews.to/3KHQlbo 15 million Covid vaccine doses thrown away in the U.S. since March, new data shows (1)
https://www.thepochothimes.com/dr-robert-malone-mrna-vaccine-inventor-on-latest-covid-19-data-booster-shots-and-the-shattered-scientific-consensus_3979206.html PART 1: Dr. Robert Malone, mRNA Vaccine Inventor, on Latest COVID-19 Data, Booster Shots, and the Shattered Scientific 'Consensus' (68)	https://www.dailymail.co.uk/news/article-9947445/Two-FDA-vaccine-regulators-RESIGN-clashing-WH-COVID-boosters.html Two top FDA vaccine regulators RESIGN 'in fury at White House' for 'politicizing' COVID boosters by announcing third shots for all before the agency gave medical approval (1)		https://twitter.com/andrewsorkin/status/1433372233718108166 Just brought my child to an urgent care center because she had a fever and I wanted to get her checked out. The doctor, nor the nurses, wore any masks. "Why would we mask if we are vaccinated?" the nurse told me. I was dumbfounded. I turned around and walked out. (1)	https://nyti.ms/3n9gsQJ One in 5,000. The real chances of a breakthrough infection. (1)
http://hill.cm/Y2yPQE Brazilian viper venom shows promise as drug to combat COVID-19 (61)	https://nltimes.nl/2021/09/03/new-covid-travel-alerts-issued-us-germany-23-others-ban-fully-vaccinated New Covid travel alerts issued for U.S., Germany, 23 others; No ban on fully vaccinated (1)		https://www.goodrx.com/blog/fda-covid-19-vaccine-approval-updates/ FDA COVID-19 Vaccine Approval: Live Updates on Pfizer, Moderna, and J&J Vaccines (1)	https://www.indystar.com/story/money/2021/09/08/covid-vaccine-ivy-tech-students-want-religious-exemptions-indiana/5653976001/ Ivy Tech nursing student among 234 who want religious exemption to vaccine mandate (1)

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Top URLs by City September 3– September 9

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/Bethlehem	Other
https://www.mcsweeneys.net/articles/oh-my-fucking-god-get-the-fucking-vaccine-already-you-fucking-fucks OH MY FUCKING GOD, GET THE FUCKING VACCINE ALREADY, YOU FUCKING FUCKS (147)	https://twitter.com/radleybalko/status/1434908913275707393 If you're really concerned about persuasion, for every "stop making horse penis jokes" essay, you should be writing 10 pieces condemning the high-profile personalities who knowingly spread vaccine misinformation to audiences who trust them. They're doing far, far more damage. (33)	https://www.cbc.ca/news/canada/edmonton/alberta-covid-kenney-hinshaw-1.6163826 'I wish we didn't have to do this': Alberta to offer \$100 incentive to get vaccinated against COVID-19 (89)	https://freeworldnews.tv/watch?id=613801fb52ad2c11984cfd9 West Virginia Governor Drops Bombshell: 25% Increase In Death Amongst Vaccinated Individuals (171)	http://erie.gov/health/rabies Free Rabies Vaccination Clinics (6)	https://www.nytimes.com/2021/09/02/opinion/covid-vaccine-mandates-civil-liberties.html We Work at the A.C.L.U. Here's What We Think About Vaccine Mandates (57)	https://cnn.it/7X2NGXp How to protect children under 12 from Covid-19, according to Fauci (27)
https://www.nytimes.com/2021/09/02/opinion/covid-vaccine-mandates-civil-liberties.html We Work at the A.C.L.U. Here's What We Think About Vaccine Mandates (141)	https://www.orlandosentinel.com/news/volusia-county/cv-ne-volusia-councilman-lowry-conspiracy-theory-promoter-hospitalized-covid-20210907-ckgaekok7aoad67zwoc6drdcj-story.html Volusia Councilman Lowry, conspiracy theory promoter, hospitalized with COVID-19 (24)	https://edmontonjournal.com/opinion/columnists/opinion-nobody-wins-when-alberta-plays-games-with-covid-vaccines Opinion: Nobody wins when Alberta plays games with COVID vaccines (26)	https://www.mcsweeneys.net/articles/oh-my-fucking-god-get-the-fucking-vaccine-already-you-fucking-fucks OH MY FUCKING GOD, GET THE FUCKING VACCINE ALREADY, YOU FUCKING FUCKS (98)	http://hill.cm/Y2yPQE Brazilian viper venom shows promise as drug to combat COVID-19 (5)	http://cnn.it/3n8GMu The Covid conversation is changing (41)	https://finance.yahoo.com/news/delta-variant-a-lot-of-our-school-systems-are-at-risk-of-closing-amid-surges-doctor-warns-151923395.html?uacount=1&guce_referrer=aHR0cHM6Ly93d3cuZ29yZ2ZlLnMvNjS88guce_referrer_site=AQAAABV1aXmxOCdweEmwyNbcce-qY6-u-XlwP7P Delta variant: 'A lot of our school systems' are at risk of closing amid surges, doctor warns (13)
http://cnn.it/3n8GMu The Covid conversation is changing (138)	https://www.cdc.gov/mmwr/volumes/70/wr/pdf/mm7036a2H.pdf Hospitalizations Associated with COVID-19 Among Children and Adolescents — COVID-NET, 14 States, March 1, 2020–August 14, 2021 (17)	https://www.mcsweeneys.net/articles/oh-my-fucking-god-get-the-fucking-vaccine-already-you-fucking-fucks OH MY FUCKING GOD, GET THE FUCKING VACCINE ALREADY, YOU FUCKING FUCKS (23)	https://www.thedailynews.com/news/university/vvu-faculty-overwhelmingly-support-covid-19-vaccine-mandate-1094-to-185/article_8920b504-0cbb-11ec-90f6-67d33be6da29.html In rare assembly, WVU faculty vote overwhelmingly in favor of COVID-19 vaccine mandate (72)	https://secure.actblue.com/donate/johnsonbielle?refcode=RABRD1&amount=25 Help Put These Billboards Up In Trump Counties In Wisconsin (5)	https://secure.actblue.com/donate/johnsonbielle?refcode=RABRD1&amount=25 Help Put These Billboards Up In Trump Counties In Wisconsin (41)	https://www.nytimes.com/2021/09/02/opinion/covid-vaccine-mandates-civil-liberties.html We Work at the A.C.L.U. Here's What We Think About Vaccine Mandates (9)
https://twitter.com/ahwebb/status/1435640788084563968 BREAKING: The City of Tucson is halting its COVID-19 vaccine mandate for its employees after the State's Attorney General declared it illegal. (126)	https://www.nytimes.com/2021/09/02/opinion/covid-vaccine-mandates-civil-liberties.html We Work at the A.C.L.U. Here's What We Think About Vaccine Mandates (16)	http://hill.cm/Y2yPQE Brazilian viper venom shows promise as drug to combat COVID-19 (22)	https://www.thepochothimes.com/dr-robert-malone-mrna-vaccine-inventor-on-latest-covid-19-data-booster-shots-and-the-shattered-scientific-consensus_3979206.html PART 1: Dr. Robert Malone, mRNA Vaccine Inventor, on Latest COVID-19 Data, Booster Shots, and the Shattered Scientific 'Consensus' (68)	https://trib.al/2ZWSCC NIH orders \$1.67M study on how COVID-19 vaccine impacts menstrual cycle (4)	https://trib.al/2ZWSCC NIH orders \$1.67M study on how COVID-19 vaccine impacts menstrual cycle (38)	https://nyti.ms/3n9gsQJ One in 5,000. The real chances of a breakthrough infection (8)
http://hill.cm/Y2yPQE Brazilian viper venom shows promise as drug to combat COVID-19 (85)	http://cnn.it/3n8GMu The Covid conversation is changing (15)	https://nyti.ms/3n9gsQJ One in 5,000. The real chances of a breakthrough infection (20)	http://hill.cm/Y2yPQE Brazilian viper venom shows promise as drug to combat COVID-19 (61)	http://cnn.it/3n8GMu The Covid conversation is changing (3)	https://nyti.ms/3n9gsQJ One in 5,000. The real chances of a breakthrough infection (34)	https://www.foxnews.com/sports/buccaneers-nfl-team-100-vaccinated-status Buccaneers second NFL team to reach 100% vaccinated status (8)

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Top Influencers by County September 3– September 9

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

Allegheny	Butler	Cambria	Fayette	West Moreland	Beaver	Somerset
BleacherReport	TheDankingerski	ConemaughHealth	LaBelle50	MartyGriffinKD	colin_dunlap	DougLambert12
TheRightMelissa	mlsmd69	kristenmhudak	mommydog67	drkomanduri	TribLiveHSSN	PFennen
DailyAthenaeum (agency)	ChrisCafardi	NicoleFuschino	gigi419 (antivax) (high bot score)	thisisdanbell	_ADAMN_	Rosebud1668
KDKA (agency)	padenpur	krispykrunch24	ToddEury	ctsmith56	mal42190	_elizabethmckay
BR_CFB	keenzai	_ShaunDougherty	mattyic3	baileyweberrr	wendbish	freeandliving

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

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Top Influencers by City September 3– September 9

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

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/ Bethlehem	Other
kdnerak33	FOX29philly	GovernorTomWolf	BleacherReport	ECDOH	ImWhiteWTF	tyfrench_
WhiteRabbitNN	RMConservative	RedHatPitbull2	TheRightMelissa	ACGatorSports	EricBoehlert	mmpadellan
PHLPublicHealth	drccraigwax	SeanHackman3	DailyAthenaeum	PrettyBoySm00th	JaquanBrisker	Jim_Jordan
kr3at	ThorDeplorable	UncleHotep	KDKA	GenMcLaneSports	MedicVet68	jrcmachobass
TheLaurenChen	TrumpPuppy9	GregBryk	BR_CFB	ETNreisenweber	BASDSUPT	favoritesenpaii

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

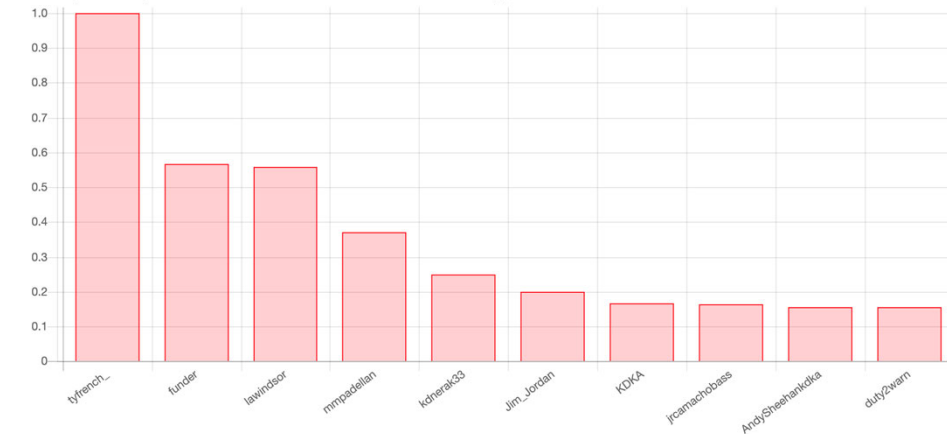
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Analysis of Tweeters - Super Spreaders

❑ Super Spreaders are users which generate content that is shared often, and



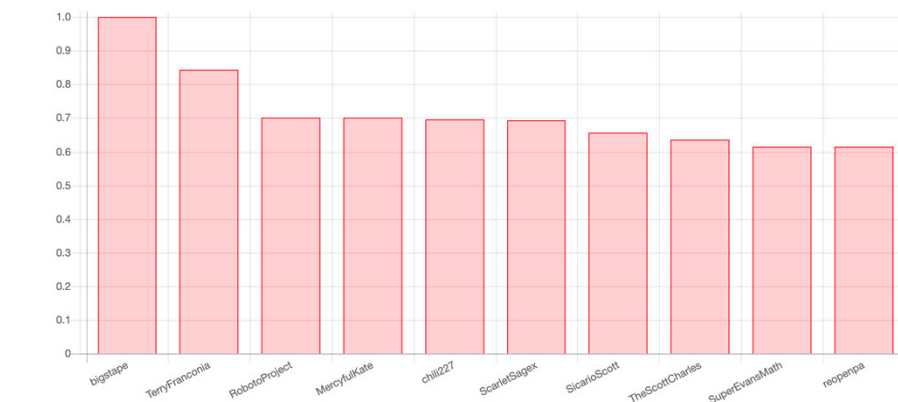
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Analysis of Tweeters - Super Friends

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



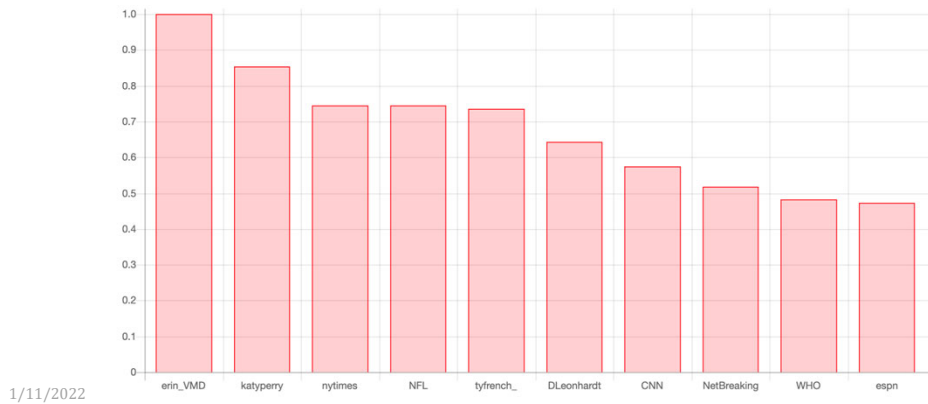
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Analysis of Tweeters - Other Influencers

- 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
favoritesenpaii	953
KITV4	553
GovernorTomWolf	551
YourFriendSamer	453
WISH_TV	440
Timcast	391
RWMaloneMD	378
CDCgov	374
DrEricDing	357
CNN	347

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Trending PA stories September 3– September 9

- 1 [apnews.com](#) - AP source: Biden requiring federal workers to get COVID shot (229 Mentions)
- 2 [mcsweeneys.net](#) - Oh My Fucking God, Get the Fucking Vaccine Already, You Fucking Fucks (177 Mentions)
- 3 [thehill.com](#) - Howard Stern rips vaccine opponents: 'F--k their freedom, I want my (110 Mentions)
- 4 [nbcnews.com](#) - Comedian Patton Oswalt cancels shows over Covid regulations (79 Mentions)
- 5 [vaccines.gov](#) - Vaccines.gov - Find COVID-19 vaccine locations near you (66 Mentions)
- 6 [tucker.vote](#) - TUCKER FOR U.S. SENATE (61 Mentions)

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Trending PA tweets September 3– September 9

- | | |
|--|--|
| <p>1</p> <p>My 12-year-old had appendicitis. The ER was overwhelmed with unvaccinated Covid patients and we had to wait 6+ hours. While waiting, his appendix ruptured and had to spend 5 days in hospital; just got hmo bill of \$5000. So yeah, your decision to not vaccinate does affect others.</p> <p>346 Retweets</p> | <p>4</p> <p>It starts with "vaccine passports" ...but what next? "Driving passports" to use my own car? "Library passports" to borrow a book? "TRAVEL PASSPORTS" to leave the country???? TYRANNY NEVER SLEEPS MY FRIENDS</p> <p>132 Retweets</p> |
| <p>2</p> <p> Occuppy Democrats
@occuppydemocrats</p> <p>BREAKING: Florida doctor tells her "selfish" unvaccinated patients she'll stop treating them in person because "the health of the public takes priority over the rights of individuals," and "going against the science" will violate her "Hippocratic Oath." RT IF YOU STAND WITH HER!</p> <p>211 Retweets</p> | <p>5</p> <p>Italy has passed their national vaccine mandate. No vaccine, no work, no school, no church, no shopping, no restaurants, no cafe, no sports center, no haircut, nothing, nada, or as we say in Italia niente! #VivaLaGreenPass</p> <p>114 Retweets</p> |
| <p>3</p> <p>can't stop staring in disbelief at this map of current global covid hot spots – the U.S., the wealthiest country in the world, where vaccines are freely available, has the highest per capita case rate right now of any country except Mongolia
https://t.co/Sy2il4JX3s</p> <p>188 Retweets</p> | <p>20</p> <p></p> |

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Trending PA tweets September 3– September 9

6	Texas Republicans: "It's 'My body, my choice' for masks and vaccinations. But if you're a 13-year-old girl who was brutally raped by your uncle, then you're nothing more than a 'host body' who should be forced to give birth to your rapist's baby. Got it, y'all?"	110 Retweets	9	President Biden: "Many of us are frustrated with the nearly 80 million Americans who are still not vaccinated, even though the vaccine is safe, effective, and free." AMEN.	105 Retweets
7	The CDC now estimates that 83% of the American public is protected from COVID-19, whether through vaccination or natural immunity. The pandemic is basically over.	109 Retweets	10	This is simply not true. Vaccines for smallpox, later childhood vaccines for measles, mumps, rubella, Hib (vaccines discovered in USA), preserved our nation. I'm aghast at the absence of intellectual curiosity or even passing interest in American history from our US Congress	104 Retweets
			8	President Biden to the unvaccinated: "We've been patient, but our patience is wearing thin. And your refusal has cost all of us."	106 Retweets

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Top PA Twitter Authors September 3– September 9

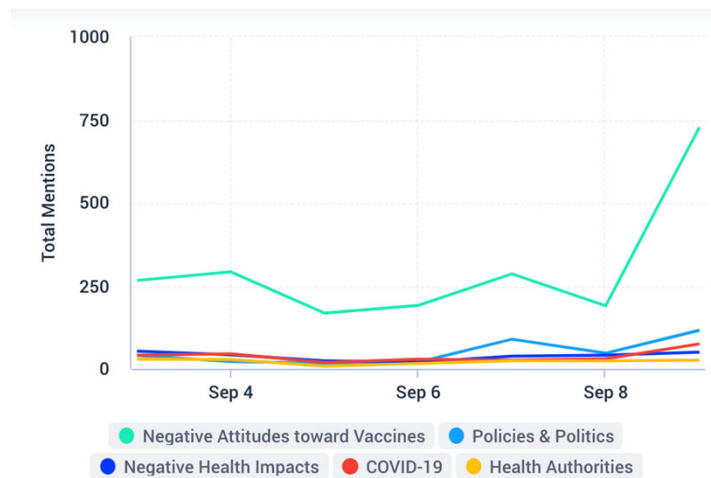
By mentions	By influence
@erin_vmd	@questlove
@helenjojojojo	@malcolmnance
@kirkturner777	@6abc
@tackingcaleuche	@fox29philly
@rliberalskiddin	@accuweather
@bob_levitt	@nbcphiladelphia
@btlima	@phillyinquirer
@lthomps54	@wpxi
@cdekeane	@cbsphilly
@blyntjames	@gruber

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Negative Attitudes September 3– September 9

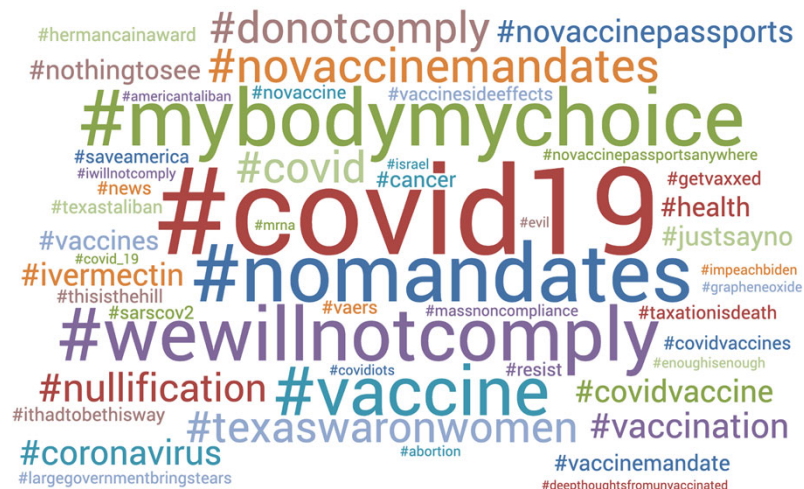


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Negative Hashtag Cloud September 3– September 9



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Trending negative PA stories September 3– September 9

- ❑ apnews.com - AP source: Biden requiring federal workers to get COVID shot (43 Mentions)
- ❑ childrenshealthdefense.org - Biden to Lay Out 6-Prong Plan for More COVID Vaccine Mandates and Restrictions Targeting Unvaccinated (20 Mentions)
- ❑ sharylattkisson.com - Covid-19 natural immunity compared to vaccine-induced immunity: The definitive summary (13 Mentions)
- ❑ medrxiv.org - Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections (9 Mentions)
- ❑ yorkdispatch.com - 'I implore you': WellSpan doctor urges vaccine hesitant to get COVID shots (7 Mentions)
- ❑ dailycaller.com - CDC Doing 'Exploratory Work' To Decide Whether To Study If COVID Vaccines Are Causing 'Menstrual Irregularities' (6 Mentions)
- ❑ msn.com - Arkansas jail inmates say they were unknowingly given unproven COVID-19 treatment ivermectin: 'They were running experiments on us' (6 Mentions)

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Trending Negative PA tweets September 3– September 9

- | | |
|--|--|
| <p>1</p> <p>Texas Republicans: "It's 'My body, my choice' for masks and vaccinations. But if you're a 13-year-old girl who was brutally raped by your uncle, then you're nothing more than a 'host body' who should be forced to give birth to your rapist's baby. Got it, y'all?"</p> <p>110 Retweets</p> | <p>4</p> <p>If you forcibly promoted the vaccine while also saying "my body my choice," your opinion on the Texas abortion law is irrelevant.</p> <p>42 Retweets</p> |
| <p>2</p> <p>"My body my choice" "Round up the unvaccinated" - Same people</p> <p>89 Retweets</p> | <p>5</p> <p>Recently on Fox News, Tucker Carlson has defended counterfeit vaccine cards, compared mask and vaccine mandates to "my body, my choice", and suggested those working to stop Covid should be "punished severely." Oh also, Peter Griffin can't say "goddamn."</p> <p>40 Retweets</p> |
| <p>3</p> <p>He doesn't have the power to mandate this. If government could mandate the vaccine for federal employees & contractors, it would require a vote of Congress. It's medical tyranny. People will remember those who did this to them & who did not speak out. https://t.co/WVqGnxAX25</p> <p>43 Retweets</p> | |


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



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Trending Negative PA tweets September 3– September 9

- 6  Sharyl Attkisson  @sharylattkisson
- All who want to get vaccinated have the right to do so. But if we can still get & spread Covid afterward, vaccine mandates/passports don't prove who's safe—just who's complied. The safest, according to studies, are those who've recovered from Covid. Why is that so often ignored?
- 38 Retweets
- 9
- Y'all wanna talk about "my body my choice" when it comes to the vaccine but take away women's rights to get an abortion??? Sick
- 27 Retweets
- 7
- I'll say this once again: @Facebook could end the anti-vax death cult in this nation tomorrow. It's not hard. They know who the sources of this poison are, and could shut them down with a few clicks and save countless lives. But they won't.
- 29 Retweets
- 10
- If you support a national vaccine mandate, but shout "my body, my choice!" in support of aborting of a baby with its OWN AUTONOMOUSLY BEATING HEART ... you might be an evil asshole.
- 26 Retweets
- 8
- So conservatives want to make sure that women can't get abortions but they are also against vaccine mandates because "my body my choice?"
- 29 Retweets

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Top PA Negative Twitter Authors September 3– September 9

By mentions	By influence
@thestubbornide1	@malcolmnance
@kirkturner777	@johnfetterman
@erickratz2	@wgal
@cdekeane	@wtate
@realjaysparker1	@politicussarah
@rliberalskiddin	@ryanlcooper
@robertw31360486	@chris_1791
@amyberlin16	@j_mei21
@mishao1989	@lindyli
@betsycurrie3	@amishpornstar1

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

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Trending Posts on Facebook September 3– September 9

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CASOS
Carnegie Mellon University

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Trending Posts on Facebook September 3– September 9

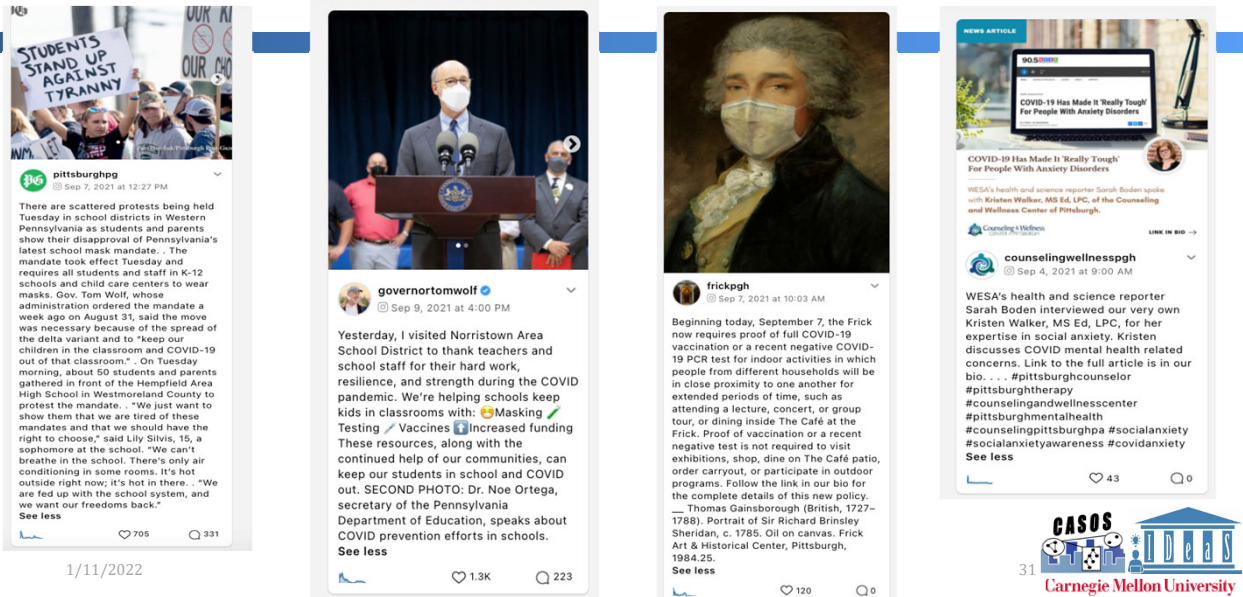
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CASOS
Carnegie Mellon University

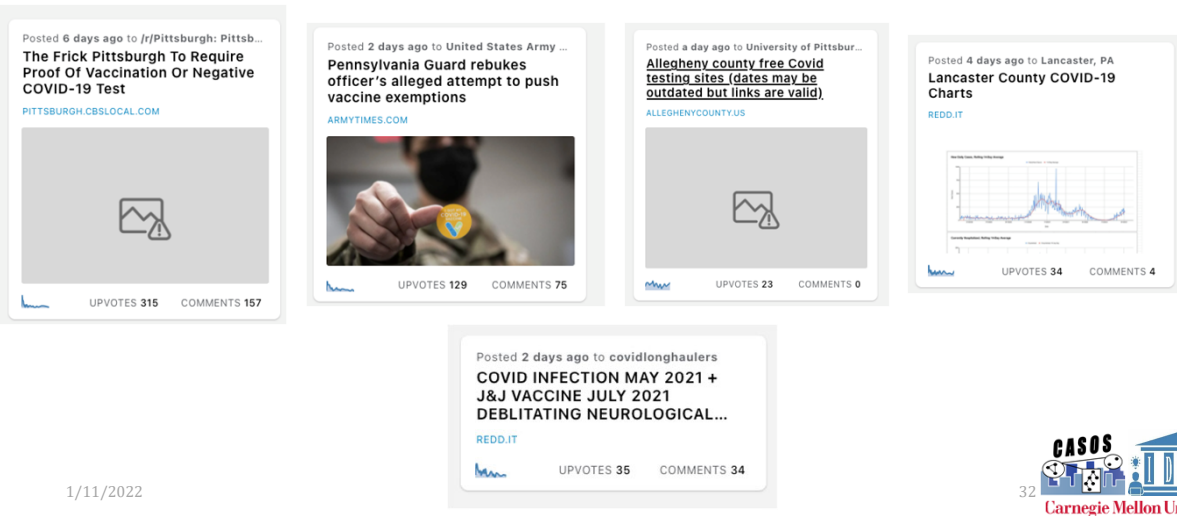
30

Trending Posts on Instagram September 3– September 9



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Trending Posts on Reddit September 3– September 9



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General Trends September 3– September 9

- ❑ This week, overall trending stories covered new mandates and regulations such as President Biden requiring federal workers to get COVID shot, mask mandates at schools and universities as well as vaccination requirements;
- ❑ A lot of tweets express critique about the news that football player Carson Wentz is not vaccinated. Hashtags #colts and #wentz are in Twitter trends for PA this week;
- ❑ Hashtag #RonaRon is identified in trends, presents a great criticism against Ron Johnson, a Senator from Wisconsin, for his opposition to vaccination and COVID-19 prevention measures as well as using confidential information from covid briefing for insider trading;
- ❑ Mandates and Masks conversations are the most popular (trending hashtags #novaccinemandates; #novaccinepassports and others were identified in trends);
- ❑ A lot of negative tweets covered 'My Body - My Choice' concept that served as a tool for further polarization between people who are against ban on abortions and another group who are against vaccination requirements. These two sides have been clearly divided by the political ideology;
- ❑ Many posts discuss treatment with ivermectin;
- ❑ Facebook, Instagram, and Reddit messages also illustrated the overall concern about required vaccination and mask mandates, particularly for schools.

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For More Information

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- ❑ 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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