

PA Vaccine Conversations and Misinformation on Twitter

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Vaccine Hesitancy Project Update based on October 8 – October 14, 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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High Level View by City October 8 – October 14

	Total PA	Philadelphia		Pittsburgh		Erie		Allentown/Bethlehem		Other	
Conversation	Tweets	Tweets	%	Tweets	%	Tweets	%	Tweets	%	Tweets	%
Overall Vaccine	95168	52786	55.5%	21753	22.9%	875	0.9%	16538	17.4%	3216	3.4%
Vaccine Passports	2279	1336	2.5%	467	2.1%	17	1.9%	418	2.5%	41	1.3%
FDA Approval	430	218	0.4%	90	0.4%	3	0.3%	107	0.6%	12	0.4%
Boosters	1628	854	1.6%	390	1.8%	27	3.1%	267	1.6%	90	2.8%
Fetal Tissue	1293	482	0.9%	361	1.7%	11	1.3%	416	2.5%	23	0.7%
"Experimental"	415	213	0.4%	71	0.3%	3	0.3%	113	0.7%	15	0.5%
Children	2151	1210	2.3%	435	2.0%	19	2.2%	398	2.4%	89	2.8%
Myocarditis	327	146	0.3%	80	0.4%			87	0.5%	14	0.4%
Heart	1276	536	1.0%	468	2.2%	7	0.8%	230	1.4%	35	1.1%
Masks	3754	1852	3.5%	895	4.1%	48	5.5%	674	4.1%	285	8.9%
Thrombosis/VITT	226	125	0.2%	37	0.2%	2	0.2%	53	0.3%	9	0.3%
Mandates	15753	8455	16.0%	2696	12.4%	156	17.8%	3871	23.4%	575	17.9%
Natural Immunity	1714	1217	2.3%	263	1.2%	5	0.6%	214	1.3%	15	0.5%
Efficacy	249	116	0.2%	35	0.2%	4	0.5%	86	0.5%	8	0.2%
Spike Proteins	81	41	0.1%	21	0.1%			17	0.1%	2	0.1%
Delta Variant	901	478	0.9%	159	0.7%	5	0.6%	190	1.1%	69	2.1%
Race	1884	1003	1.9%	425	2.0%	17	1.9%	376	2.3%	63	2.0%
Ivermectin	217	112	0.2%	55	0.3%	2	0.2%	43	0.3%	5	0.2%
Military	467	282	0.5%	61	0.3%	2	0.2%	115	0.7%	7	0.2%
Breakthrough	371	225	0.4%	56	0.3%	2	0.2%	74	0.4%	14	0.4%

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Trending conversations:

- Mandates
- Fetal tissue

Dropped "shedding" as tweets have waned over time



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High Level View by County October 8 – October 14

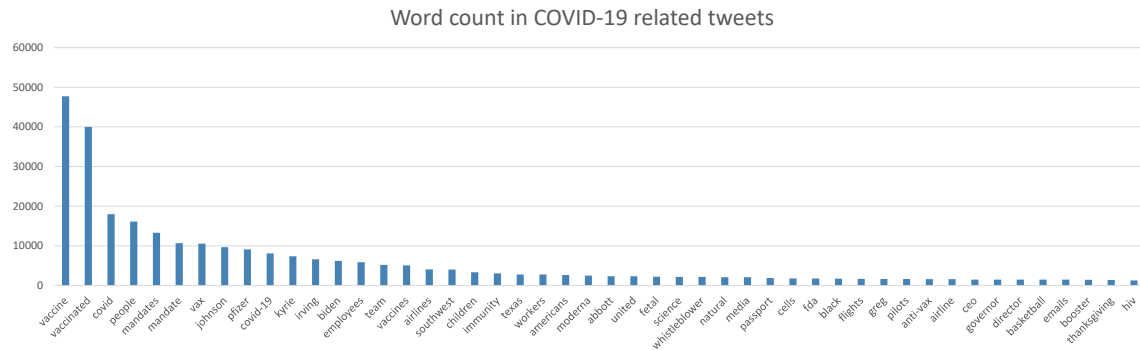
County	Allegheny	Beaver	Butler	Cambria	Fayette	Indiana	Somerset	Westmoreland
Overall Vaccine	22219	34	71	23	80	9	6	85
Vaccine Passports	475		4					2
FDA	90		1					1
Boosters	408				1	1		7
Fetal Tissue	364				2			
"Experimental"	72							1
Children	452		2		2			
Myocarditis	81							
Heart	473	1			1			1
Masks	930	2	2	3	4	2	2	5
Thrombosis/VITT	40							
Mandates	2759	4	7	3	19	1	1	15
Natural Immunity	267							
Efficacy	36							
Spike Proteins	23							
Delta Variant	170		1	1		1		1
Race	434	1	1		4		1	3
Ivermectin	56							
Military	61							
Breakthrough	58		1		1			1

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Top Words Used per Week October 8 – October 14



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Top Hashtags by County October 8 – October 14

- ❑ 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	West Moreland
pfizerleaks (555)	covid19 (6)	covid19 (2)	pfizerleaks (2)	covid (1)
covid19 (470)	freedomflu (1)	coviddeaths (1)	ericclapton (1)	freedomflu (1)
vaccine (211)	jab (1)	donotcomply (1)	gopdeathcult (1)	vaccinated (1)
steelers (209)	novaccinepassportsanywhere (1)	maskup (1)	mandatesareforsheep (1)	vaccinemandate (1)
freedomflu (177)	vaccinemandate (1)	vaccine (1)	southwestemployees (1)	vaccines (1)

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Top Hashtags by City October 8 – October 14

- ❑ 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 (610)	covid19 (144)	covid19 (175)	pfizerleaks (553)	demvoice1 (20)	pfizerleaks (386)	covid19 (50)
pfizerleaks (302)	pfizerleaks (121)	donotcomply (141)	covid19 (465)	pfizerleaks (15)	covid19 (354)	pfizerleaks (23)
vaxupphilly (204)	donotcomply (67)	pfizerleaks (111)	steelers (202)	covid19 (14)	freedomflu (174)	covidvaccine (14)
vaccine (160)	freedomflu (62)	freedomflu (55)	freedomflu (177)	bills (8)	donotcomply (135)	steelers (13)
donotcomply (143)	vaccine (28)	vaccine (41)	donotcomply (76)	freedomflu (7)	vaccine (65)	freedomflu (11)

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Top URLs by County October 8 – October 14

Allegheny	Butler + Beaver	Cambria	Fayette	West Moreland
https://trib.al/7Nyy20T Nets ban Kyrie Irving from team until he's vaccinated (312)	https://pittsburghhockeynow.com/nhl-trade-pittsburgh-penguins-jack-eichel-phil-kessel-evander-kane/ Dan's Daily: Eichel Trade Watch, Kessel on Trade Block, Kane Fake Vax Card? (3)	http://bit.ly/CoronavirusPADOH COVID-19 in Pennsylvania (1)	https://www.rollingstone.com/music/music-features/eric-clapton-vaccine-lockdown-racist-comments-1239027/ Eric Clapton Isn't Just Spouting Vaccine Nonsense—He's Bankrolling It (4)	https://yhoo.it/3BxztK5 Michael Jordan endorses NBA's handling of COVID-19 vaccine: 'I'm a firm believer in science' (3)
http://dlvr.it/S92T5Y 'Black Panther: Wakanda Forever' Star Letitia Wright Reportedly Spreading Anti-Vax Views On The Set Of Marvel's Sequel (276)	https://coloradohockeynow.com/2021/10/10/jack-johnson-signs-with-colorado-avalanche/ CHN Exclusive: Jack Johnson has made the Avalanche roster (2)	https://www.cnn.com/2021/10/10/southwest-airlines-cancels-1000-more-flights-as-disruptions-mount.html Southwest Airlines cancels 1,800 flights, blaming weather and staffing (1)	http://vaccines.gov (1)	https://abcn.ws/3ByH6ac A tale of two counties: Texas communities illustrate deep divide in COVID-19 vaccination efforts (1)
https://yhoo.it/3BxztK5 Michael Jordan endorses NBA's handling of COVID-19 vaccine: 'I'm a firm believer in science' (162)	https://www.nytimes.com/2021/10/12/briefing/covid-age-risk-infection-vaccine.html?smid=tw-share Covid and Age (2)	https://www.post-gazette.com/news/health/2021/10/06/pittsburgh-pregnancy-maternity-wards-OB-GYN-obstetricians-vaccinations-health-child-baby/stories/202110050124?utm_medium=Social&utm_source=Twitter#Echobox=1633535134-1 Pittsburgh-area maternity wards urge expectant mothers: Get your COVID-19 vaccine (1)	https://bit.ly/2YA2RaW Governor Abbott Issues Executive Order Prohibiting Vaccine Mandates By Any Entity, Adds Issue To Special Session Agenda (1)	https://www.huffpost.com/entry/new-hampshire-state-lawmaker-ken-woyler-coronavirus-conspiracies_n_615d0d4e4b0896dd1aa1c81 GOP Lawmaker Links Coronavirus Vaccine To Satan, Tentacle Monsters And 5G (1)
https://trib.al/VzpuVqT Seattle could fire 40% of police force over COVID-19 vaccine mandate (118)	https://trib.al/7Nyy20T Nets ban Kyrie Irving from team until he's vaccinated (2)	https://www.rollingstone.com/music/music-features/eric-clapton-vaccine-lockdown-racist-comments-1239027/ Eric Clapton Isn't Just Spouting Vaccine Nonsense—He's Bankrolling It (1)	https://bit.ly/3BvMBq0 Sen. Rick Scott Accuses Biden of 'Killing the Economy' (1)	https://apple.news/Ab6KFtm3ERzS4TZWesgm7MQ From Cambodia to Canada, dozens of other nations beat US in COVID-19 vaccinations (1)
https://nyti.ms/3oxUgAy A 'Historic Event': First Malaria Vaccine Approved by W.H.O. (81)	https://nypost.com/2021/10/12/southwest-ceo-gary-kelly-blames-biden-for-vaccine-mandate/ Southwest CEO says he's against vaccine mandates, blames Biden (1)	https://www.tribdem.com/coronavirus/all-area-counties-report-new-covid-19-deaths-cambria-adds-six-and-reaches-17-for/article_26359380-2c58-11ec-b780-43940df0a2ea.html All area counties report new COVID-19 deaths; Cambria adds six and reaches 17 for October (1)	https://bit.ly/3p3Mzm3 NFAC: Why is Grandmaster Jay being prosecuted (1)	https://rumble.com/vneu5j-16000-dead-from-the-vaccines-senator-ron-johnson-with-sebastian-gorka-on-a.html?mref=7x15j&mc=b4trb 16,000 dead from the vaccines. Senator Ron Johnson with Sebastian Gorka on AMERICA First (1)

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Top URLs by City October 8 – October 14

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/ Bethlehem	Other
https://dailysceptic.org/2021/10/08/firing-nurses-whove-worked-through-the-pandemic-is-a-disgrace/ Firing Nurses Who've Worked Through The Pandemic Is a Disgrace (308)	https://trib.al/7Nvy20T Nets ban Kyrie Irving from team until he's vaccinated (481)	https://trib.al/7Nvy20T Nets ban Kyrie Irving from team until he's vaccinated (2993)	https://trib.al/7Nvy20T Nets ban Kyrie Irving from team until he's vaccinated (310)	http://erie.gov/vax (9)	https://trib.al/7Nvy20T Nets ban Kyrie Irving from team until he's vaccinated (299)	https://trib.al/7Nvy20T Nets ban Kyrie Irving from team until he's vaccinated (23)
https://rumble.com/vnmzuplanet-lockdown-pfizer-former-chief-scientist-dr-michael-yeardon-gives-us-a.html PLANET LOCKDOWN - Pfizer Former Chief Scientist Dr. Michael Yeadon Gives Us A Final Warning (294)	https://www.dailymail.co.uk/news/article-10078079/Hundreds-thousands-U-S-service-members-remain-unvaccinated-against-COVID-deadline-nears.html Hundreds of thousands of U.S. troops remain unvaccinated with deadline to have shots now less than eight weeks away (41)	https://www.dailymail.co.uk/news/article-10078079/Hundreds-thousands-U-S-service-members-remain-unvaccinated-against-COVID-deadline-nears.html Hundreds of thousands of U.S. troops remain unvaccinated with deadline to have shots now less than eight weeks away (121)	http://dlvr.it/S9ZT5Y 'Black Panther: Wakanda Forever' Star Letitia Wright Reportedly Spreading Anti-Vax Views On The Set Of Marvel's Sequel (276)	https://trib.al/VzplUvqT Seattle could fire 40% of police force over COVID-19 vaccine mandate (4)	https://www.rollingstone.com/music/music-features/eric-clapton-vaccine-lockdown-racist-comments-1239027/ Eric Clapton Isn't Just Spouting Vaccine Nonsense—He's Bankrolling It (67)	https://www.rollingstone.com/music/music-features/eric-clapton-vaccine-lockdown-racist-comments-1239027/ Eric Clapton Isn't Just Spouting Vaccine Nonsense—He's Bankrolling It (17)
https://yhoo.it/3Bxrtk5 Michael Jordan endorses NBA's handling of COVID-19 vaccine: 'I'm a firm believer in science' (272)	https://baylorbee.com/news/southwest-airlines-offering-free-flights-to-all-passengers-who-are-vaccinated-and-can-fly-a-plane Southwest Airlines Offering Free Flights To All Passengers Who Are Vaccinated And Can Fly A Plane (26)	https://gettr.com/post/pdgmth168 CCP Virus Covid-19 Treatment & Prophylaxis Protocol & Covid-19 Vaccinated People Detox Protocol Recommended by the New Federal State of China Whistleblowers Movement (Recommendations for treatment with Ivermectin) (42)	https://yhoo.it/3Bxrtk5 Michael Jordan endorses NBA's handling of COVID-19 vaccine: 'I'm a firm believer in science' (158)	http://buff.ly/3aoy112 Bills sign CB Taron Johnson to a three-year contract extension (3)	https://trib.al/VzplUvqT Seattle could fire 40% of police force over COVID-19 vaccine mandate (61)	https://yhoo.it/3Bxrtk5 Michael Jordan endorses NBA's handling of COVID-19 vaccine: 'I'm a firm believer in science' (14)
https://trib.al/7Nvy20T Nets ban Kyrie Irving from team until he's vaccinated (267)	https://notthebee.com/article/heres-fauci-and-his-hhs-peeps-in-2019-explaining-how Here's Fauci and his HHS peeps in 2019 explaining how time-consuming RNA vaccine trials are, and how if only some "urgent call" that's "not beholden to bureaucratic strings and processes" could come along they could introduce the vaccine more easily (25)	https://on.pfizer.com/3mw17FG (COVID-19 virtual summit) (39)	https://trib.al/VzplUvqT Seattle could fire 40% of police force over COVID-19 vaccine mandate (117)	https://www.cnbc.com/2021/10/10/southwest-airlines-cancels-1000-more-flights-as-disruptions-mount.html Southwest Airlines cancels 1,800 flights, blaming weather and staffing (3)	https://www.ibtimes.com/518-fully-vaccinated-pennsylvania-residents-have-died-covid-19-3315130 518 Fully Vaccinated Pennsylvania Residents Have Died Of COVID-19 (60)	https://trib.al/VzplUvqT Seattle could fire 40% of police force over COVID-19 vaccine mandate (11)
https://trib.al/VzplUvqT Seattle could fire 40% of police force over COVID-19 vaccine mandate (208)	https://jamgreatness.com/2021/10/12/southwest-airlines-ceo-says-no-employees-will-be-fired-over-vaccine-mandate/ Southwest Airlines CEO Says No Employees Will Be Fired Over Vaccine Mandate (24)	https://www.rollingstone.com/music/music-features/eric-clapton-vaccine-lockdown-racist-comments-1239027/ Eric Clapton Isn't Just Spouting Vaccine Nonsense—He's Bankrolling It (30)	https://nyri.ms/3oxlGvA 'Historic Event': First Malaria Vaccine Approved by W.H.O. (81)	https://www.thedailybeast.com/allen-west-has-covid-symptoms-takes-ivermectin-source-tweets-via-deskstop Unvaccinated Allen West Has COVID, Pneumonia, and Low Oxygen (3)	https://www.dailymail.co.uk/news/article-10078079/Hundreds-thousands-U-S-service-members-remain-unvaccinated-against-COVID-deadline-nears.html Hundreds of thousands of U.S. troops remain unvaccinated with deadline to have shots now less than eight weeks away (58)	https://buff.ly/3oXGo2S Catholic Troops Can Refuse COVID Vaccine, Archbishop Declares (10)

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Top Influencers by County October 8 – October 14

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

Allegheny	Butler	Cambria	Fayette	West Moreland	Beaver	Indiana
pcraised2020	TheDanKingerski	CSonafelt (high bot score)	TheWaffle85	AJWPAL	TribLiveHSSN	SysterJeff
SteelersNetwork	gramsci33	Musicmama123A	TjHolidayTweets	MartyGriffinKD	colin_dunlap	JDGroovey
KDKA	karldickey (high bot score)	crsay60	seantlittle1	gillie	PghSportsNation	IUPiceHockeyD3
JohnFetterman	JohnTheMainGuy1	LuvSavingMoney	mommydog67	PeaceLovePgh	wendbish (high bot score)	StevenRConnors1 (high bot score)
Johnis44 (high bot score)	TeamDrydene	morecameras	Irishpatriot386 (antivax)	Elianok10	StephMM916	GiaCannavino

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

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Top Influencers by City October 8 – October 14

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

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/Bethlehem	Other
ElectionWiz	Drcraigwax (antivax)	catturd2	pcraised2020	DBChirpy (high bot score)	YoureAllDunces	nypost
OccupyDemocrats	VABVOX	PhillyMayor	SteelersNetwork	DannyGraham_	69News	JesseKellyDC
ABC		sherrylynnww1	KDKA	matt_lausher	joegooding (high bot score)	JackPosobiec
patriottakes	Smackenziekerr (high bot score)	NotAlexSheppard	johnis44 (high bot score)	PrezLives2022	business	pfizer
PHLPublicHealth	TrumpPuppy9 (high bot score)	Surabees	WTAE	SicTransit34 (high bot score)	janeyK_KAG	Breaking911

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

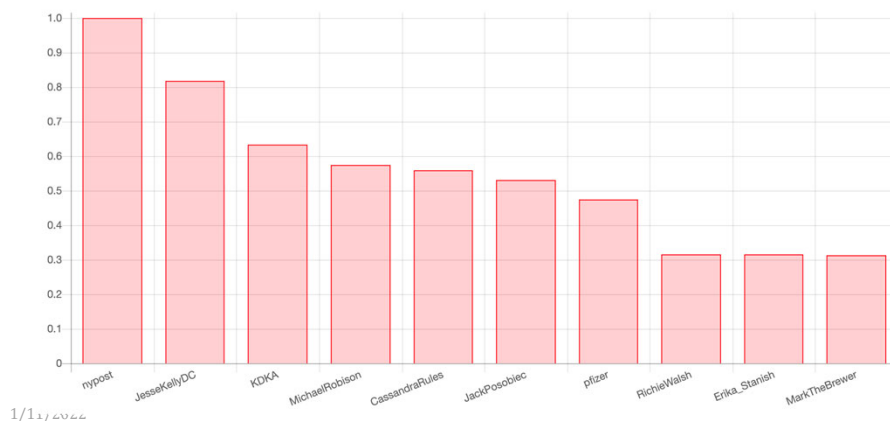
1/11/2022



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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.



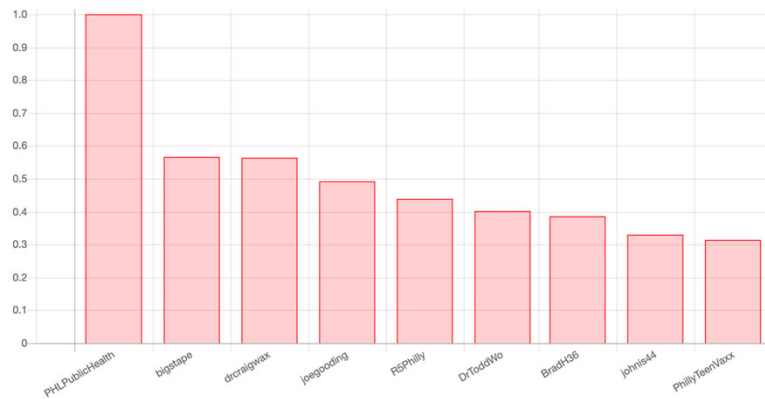
1/11/2022



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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.



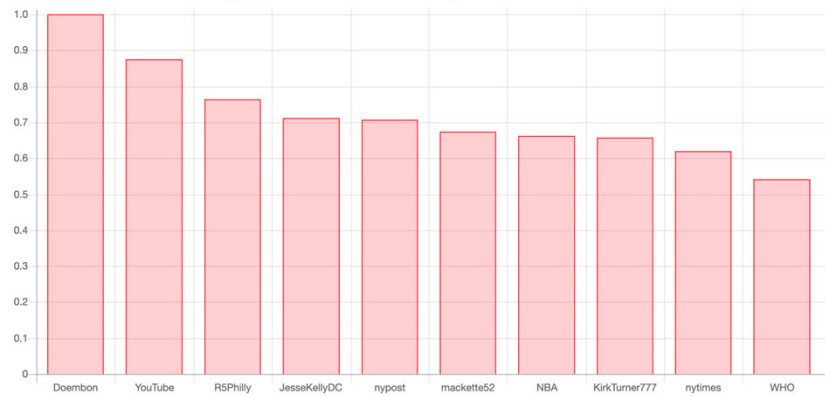
1/11/2022



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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.

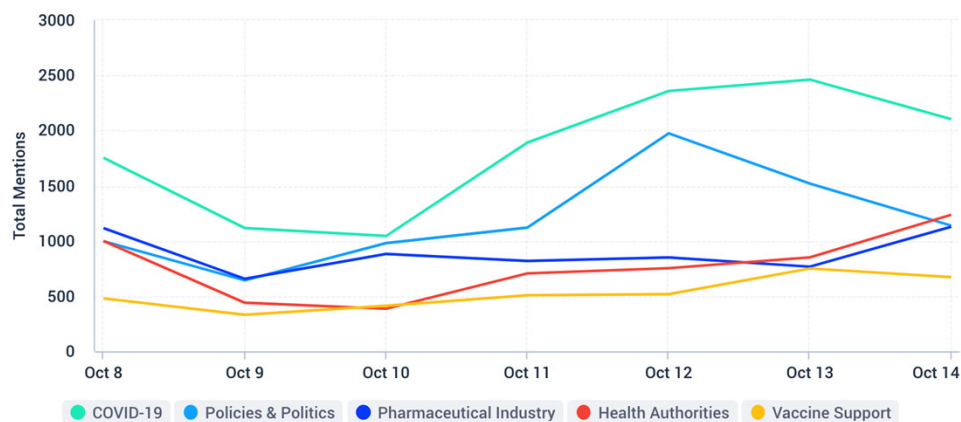
Agent Label	Value
JesseKellyDC	4192
JackPosobiec	1461
pfizer	1426
SouthwestAir	1118
catturd2	865
POTUS	712
GregAbbott_TX	561
FoxNews	529
10DowningStreet	481
RealCandaceO	441

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General PA Conversation October 8 – October 14



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Trending PA tweets October 8 – October 14

Life is pretty much back to normal here in Norway. And we have no mask mandates, no vaccine mandate, no mandated social distancing. It's amazing how much freedom you get when you just listen to and follow the science 🙌

174
Retweets

4  **Donald Trump Jr.**
@donaldjtrumpjr

The fact that thousands of Southwest employees walked off the job protesting the COVID vaccine mandate forcing the airline to cancel more than 1000 flights is not getting enough attention. Media will make sure you don't see it but keep watching, it won't be the last protest!

156
Retweets

Michael Jordan would inject his teammates himself and I'm not joking at all

171
Retweets

Nah don't compare Kyrie refusing a vaccine to Ali refusing to participating in American imperialism not at all the same

144
Retweets

3  **Occupy Democrats**
@occupydemocrats

BREAKING: American and Southwest Airlines announce that they will ignore Republican Governor Greg Abbott's foolish ban on vaccine mandates and will continue to enforce them in deference to the Biden administration's orders. RT IF YOU SUPPORT THEIR DECISION!

169
Retweets

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19

Trending PA tweets October 8 – October 14

holy fucking shit, vaccine mandates are causing teachers who don't believe in science to quit, nurses who don't believe in medicine to quit, and cops who don't believe in public safety to quit. I'm failing to see the downside to this

142
Retweets

BREAKING: Southwest Airlines CEO Says No Employees Will Be Fired Over Vaccine Mandate. Pay Attention! This is what happens when you stand together and say ENOUGH!

135
Retweets

Vaccines work. Marjorie Taylor Greene does not. Retweet to pass it on.

141
Retweets

Y'all remember when Covid first came out and the TL was like "They need to find a vaccine for this!" And then they did? 🤔

134
Retweets

Lmao could you imagine tryna explain to kobe or MJ as your teammate that you was gonna miss basketball games cus you ain't wanna get a shot

136
Retweets

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Top PA Twitter Authors October 8 – October 14

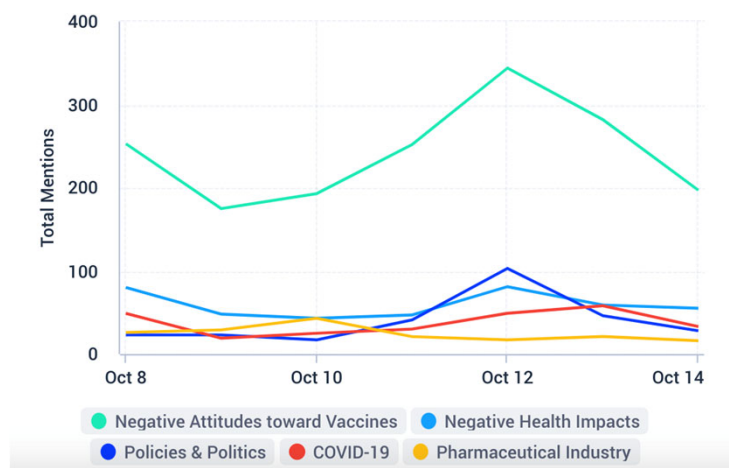
By mentions	By influence
@doembon	@questlove
@kirkturner777	@malcolmnance
@mishao1989	@6abc
@cdekeane	@fox29philly
@radajjoei	@accuweather
@rliberalskiddin	@nbcphiladelphia
@iridescentashes	@ericfisher
@dorothymontgom4	@brithume
@katarinagiselle	@phillyinquirer
@joegooding	@wpxi

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Negative Attitudes October 8 – October 14



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Trending Negative PA tweets October 8 – October 14

Look at this vaccine free utopia. <https://t.co/LVHvpBOIhb>

76
Retweets

2  **Ron DeSantis**
[@govrondesantis](https://twitter.com/govrondesantis)

No one should lose their job because of COVID shots. [@HealthyFla](https://twitter.com/HealthyFla) fined Leon County more than \$3.5 million for violating Florida law after the county fired 14 employees for not complying with the county's forced vaccination policy.

54
Retweets

3  **Marjorie Taylor Greene**
[@mtgreene](https://twitter.com/mtgreene)

FYI: There are many vaccine injuries and deaths being reported with the covid vaccines. Anyone and any organization mandating vaccines that may be causing death or damage to people's health put themselves at risk/liability of lawsuits and/or legal consequences. [#NoMandates](https://twitter.com/NoMandates)

36
Retweets

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

Texas Governor Abbott thinks Biden's vaccine mandates for companies with more than 100 employees is "government overreach". But does he really think his ban on abortions after 6 weeks isn't government overreaching into the wombs of Texas women?

26
Retweets

Once again, please remember, it is written into federal US Law that the government shall lie about vaccine safety and efficacy. <https://t.co/mv4AdMPP5l>

32
Retweets



25

Trending Negative PA tweets October 8 – October 14

Kyrie Irving is risking losing \$33m by not getting the vaccine. However, if he refuses, he will be the face of courage against medical tyranny. And history will remember him as a LEADER! I stand with [@KyrieIrving](https://twitter.com/KyrieIrving)!

25
Retweets

7  **MeidasTouch.com**
[@meidastouch](https://twitter.com/meidastouch)

Fox 'News' hosts are awfully silent on the 'medical tyranny' of their employer's vaccine mandates. I'm sure they will speak out any day now...

24
Retweets

Like the rest of this Kabuki theater, Biden's Vaccine Mandate does not exist, it's just a Press Release. Except military and federal employees. If you are injured by the job due to a non-federal employee mandate, your employer will not be covered. <https://t.co/NR2xrOUydu>

21
Retweets

Iceland joins Sweden, Norway, Denmark, and Finland, in limiting or suspending use of the Moderna vaccine, for some or all ages, due to risk of inflammation of the heart muscle and the pericardium. H/T [@SharylAttikisson](https://twitter.com/SharylAttikisson) <https://t.co/5trhrk5E7A>

17
Retweets

A 18-year-old man - After getting the 1st dose of the [#CovidVaccine](https://twitter.com/CovidVaccine) (Covishield): headache & recurrent vomiting for five days ⇒ intracerebral hemorrhage ⇒ vaccine-induced thrombosis and thrombocytopenia - He died 7 days after hospitalization <https://t.co/jTyDWY50aS> <https://t.co/pVBjNL2A3h>

16
Retweets

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26

Top PA Negative Twitter Authors October 8 – October 14

By mentions	By influence
@doembon	@malcolmnance
@joegooding	@nbcphiladelphia
@dorothymontgom4	@chuckwendig
@jax4336	@yoda
@jsm2334	@qtrresearch
@kidcreole311	@chris_1791
@lifebiomedguru	@ameshaa
@no1spec09418373	@pahousedems
@qtrresearch	@rahrahraina
@christi06249366	@bigjoebastardi

*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 October 8 – October 14

WTAE-TV Pittsburgh Oct 14, 2021 at 9:31 AM

Fans attending the Harry Styles concert at PPG Paints Arena tonight will be required to show proof of full vaccination or a negative COVID-19 test, as well as wear masks.

Harry Styles requiring masks and vaccination or negative test for

WTAE.COM

1.1K 587 41

KDKA-TV | CBS Pittsburgh Oct 11, 2021 at 11:31 AM

Dr. Anthony Fauci says families can feel safe trick-or-treating this year as COVID-19 cases decline. He said it's an important time of year for children, so "go out there" and "enjoy it."

Dr. Anthony Fauci Says Kids Should Enjoy Halloween This Year And

PITTSBURGH.CBSLOCAL.COM

1.1K 761 129

WTAE-TV Pittsburgh Oct 13, 2021 at 5:17 PM

JUST IN: Gov. Tom Wolf announced Wednesday that 70% of Pennsylvanians aged 18 and older are fully vaccinated against COVID-19.

Gov. Wolf says 70% of Pennsylvanians aged 18 and older are fully

WTAE.COM

763 397 20

KDKA-TV | CBS Pittsburgh Oct 11, 2021 at 2:00 PM

UPMC and AHN won't deny organ transplants to patients who refuse to get vaccinated against COVID-19.

UPMC, AHN Won't Deny Organ Transplants To Patients Not Vaccinated

PITTSBURGH.CBSLOCAL.COM

1.2K 259 87

WTAE-TV Pittsburgh Oct 12, 2021 at 2:01 PM

Workers for Penn Medicine, who were dismissed from their jobs for not getting a COVID-19 vaccine, have filed a federal lawsuit.

Workers file COVID-19 vaccine mandate lawsuit against Penn Medicine

WTAE.COM

880 378 63

WPXI-TV Pittsburgh Oct 8, 2021 at 5:38 PM

The kits were sold in the U.S. by retailers including Amazon, CVS, Target and Walmart.

Coronavirus: FDA recalls COVID-19 home tests for producing false positives

WPXI.COM

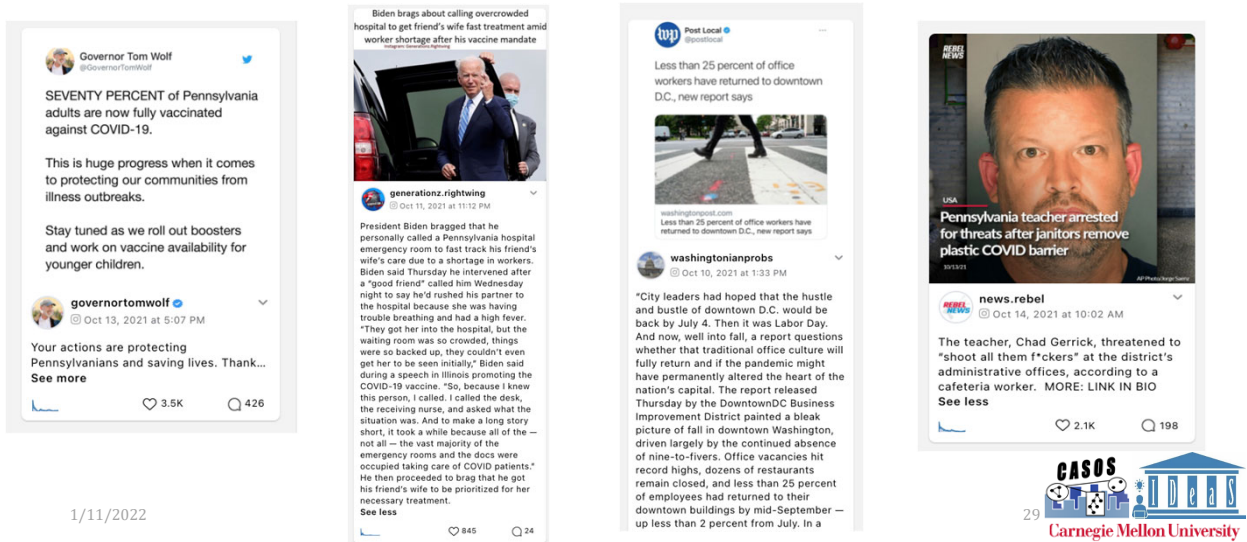
431 185 265

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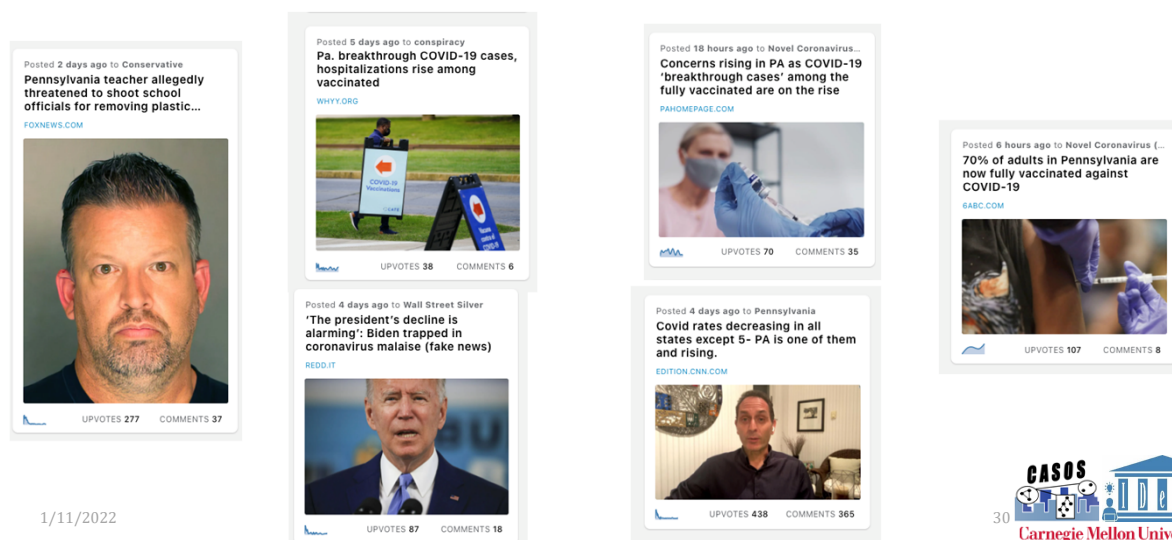
28

Trending Posts on Instagram October 8 – October 14



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Trending Posts on Reddit October 8 – October 14



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Massive Pfizer Disinformation Campaign by @projectveritas with #pfizerleaks trending (around 155k tweets in our data for this week)

veritastips@protonmail.com @EricSpracklen · Oct 7

ICYMI: [@Pfizer](#) Whistleblower Drops Covid Vaccine BOMBSHELL About Company's Agenda To Suppress Covid Vaccine Details From Public

'We Want to Avoid Having the Information on the Fetal Cells Floating Out There.'

[#PfizerLeaks](#)



4:38 3.2M views

From [veritastips@protonmail.com](#)

This Tweet may be misleading. Learn more about how vaccines work.

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Candace Owens
[@realcandaceo](#)

I just saw an early release of [@projectveritas](#) whistleblower video that is about to be released and OMG does every person who was fired and not granted religion exception for the vaccine mandate need to see it. This is genuinely explosive.


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Madison Cawthorn @CawthornforNC · Oct 6

PFIZER LEAKS: Whistleblower Goes On Record, Reveals Emails from Chief Scientific Officer & Senior Director of Worldwide Research Discussing COVID Vaccine

'We Want to Avoid Having the Information on the Fetal Cells Floating Out There'

[#PfizerLeaks](#)



4:38 3.2M views


From [veritastips@protonmail.com](#)

This Tweet may be misleading. Learn more about how vaccines work.

10:51 PM · Oct 6, 2021 · Twitter for iPhone

1,143 Retweets 57 Quote Tweets 2,499 Likes

119 Retweets



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General Trends October 8 – October 14

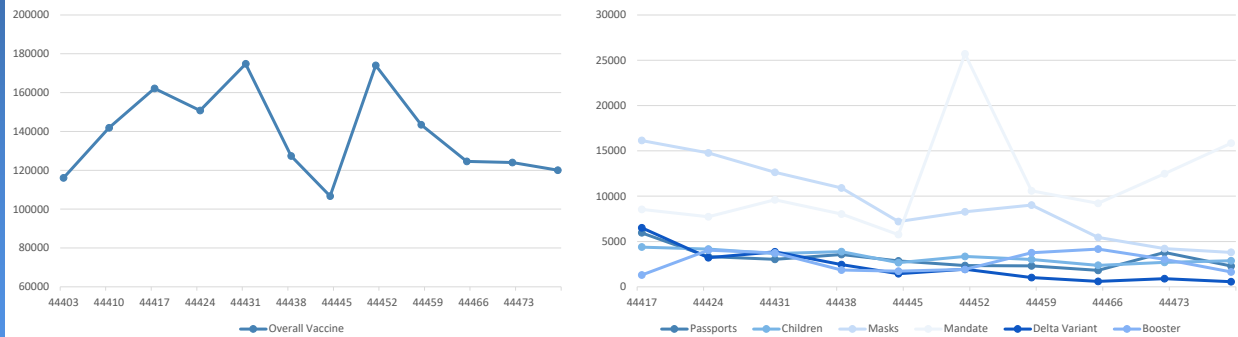
- ❑ This week's stories covered vaccination mandates, athletes' decisions on getting vaccinated and other sport issues related to COVID-19 (such as <https://trib.al/7Nyy20T> Nets ban Kyrie Irving from team until he's vaccinated & <https://yhoo.it/3BxztK5> Michael Jordan endorses NBA's handling of COVID-19 vaccine: 'I'm a firm believer in science')
- ❑ There was a massive disinformation campaign about Pfizer vaccine with the hashtag #pfizerleaks that is spread by Project Veritas. Another hashtag #freedomflu was frequently used by anti-vax users.
- ❑ Among other trending stories: <https://www.cnn.com/2021/10/10/southwest-airlines-cancels-1000-more-flights-as-disruptions-mount.html> Southwest Airlines cancels 1,800 flights, blaming weather and staffing; <http://dlvr.it/S92T5Y> 'Black Panther: Wakanda Forever' Star Letitia Wright Reportedly Spreading Anti-Vax Views On The Set Of Marvel's Sequel; <https://trib.al/VzpllvqT> Seattle could fire 40% of police force over COVID-19 vaccine mandate; <https://dailysceptic.org/2021/10/08/firing-nurses-whove-worked-through-the-pandemic-is-a-disgrace/> Firing Nurses Who've Worked Through the Pandemic Is a Disgrace; <https://nypost.com/2021/10/12/southwest-ceo-gary-kelly-blames-biden-for-vaccine-mandate/> Southwest CEO says he's against vaccine mandates, blames Biden
- ❑ Scientific research that is often mentioned in tweets: medrxiv.org - Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections; ncbi.nlm.nih.gov - Induced Thrombosis and Thrombocytopenia: First Confirmed Case from India
- ❑ Additional disinformation stories this week: <https://rumble.com/vnmjzu-planet-lockdown-pfizer-former-chief-scientist-dr-michael-yeardon-gives-us-a.html> PLANET LOCKDOWN - Pfizer Former Chief Scientist Dr. Michael Yeadon Gives Us A Final Warning; <https://gettr.com/post/pdgnbtf168> CCP Virus Covid-19 Treatment & Prophylaxis Protocol & Covid-19 Vaccinated People Detox Protocol Recommended by the New Federal State of China Whistleblowers Movement (Recommendations for treatment with Ivermectin)
- ❑ Many stories and posts celebrate reaching 70% of fully vaccinated adult population, however, some publications bring negative framing <https://www.bbtimes.com/518-fully-vaccinated-pennsylvania-residents-have-died-covid-19-3315130> 518 Fully Vaccinated Pennsylvania Residents Have Died Of COVID-19
- ❑ icelandreview.com - Moderna Use on Pause in Iceland – one of the examples of negative stories about Moderna vaccine this week
- ❑ Social media posts claimed that the federal vaccine mandate doesn't exist.

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Trends (tweets per week) October 8 – October 14



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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](#)
- ❑ Twitter: [@IDEaSCMU](#)
- ❑ YouTube: [IDEaS Center](#)
- ❑ Ask to be on our Email-Distro Lists

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